CIENA CORP
Form S-4/A
February 28, 2001

1

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON FEBRUARY 28, 2001

REGISTRATION NO. 333-53146

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

PRE-EFFECTIVE AMENDMENT NO. 3 TO

FORM S-4
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CIENA CORPORATION
(Exact name of registrant as specified in its charter)

DELAWARE	3661	23-2725311
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

1201 WINTERSON ROAD
LINTHICUM, MD 21090
(410) 865-8500
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

MICHAEL O. MCCARTHY III
SENIOR VICE PRESIDENT, GENERAL COUNSEL AND SECRETARY
1201 WINTERSON ROAD
LINTHICUM, MD 21090
(410) 865-8500
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
MICHAEL J. SILVER

AMY BOWERMAN FREED
HOGAN & HARTSON L.L.P.
111 SOUTH CALVERT STREET
BALTIMORE, MD 21202
(410) 659-2700

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this Registration Statement becomes effective and all other conditions to the merger contemplated by the Agreement and Plan of Merger dated as of December 18, 2000, as such agreement may be amended, described in the enclosed Prospectus have been satisfied or waived.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. [ ]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act of 1933 registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act of 1933, check the following box and list the Securities Act of 1933 registration statement number of the earlier effective registration statement for the same offering. [ ]

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

CYRAS SYSTEMS, INC.

47100 BAYSIDE PARKWAY
FREMONT, CALIFORNIA 94538

FEBRUARY 28, 2001

[CYRAS GRAPH]

MERGER PROPOSED -- YOUR VOTE IS VERY IMPORTANT

Dear Cyras stockholder,

Cyras has entered into a merger agreement with CIENA Corporation. As a result of the merger, Cyras would become a subsidiary of CIENA and you would become a stockholder of CIENA. The Cyras Board of Directors is furnishing this prospectus and proxy statement to you to solicit your proxy to vote for adoption of the merger agreement and approval of the merger at a special meeting of

stockholders to be held on March 29, 2001, and at any adjournment or postponement of that meeting.

If we complete the merger as proposed, each share of Cyras preferred stock and Cyras common stock that you own will be converted into shares of CIENA's common stock, unless you exercise appraisal rights under Delaware law. CIENA will issue approximately 27,000,000 shares in the merger to Cyras stockholders. We will determine the number of shares of CIENA common stock into which each share of Cyras preferred stock and common stock will be converted immediately prior to completion of the merger in accordance with formulas specified in the merger agreement and described in the attached materials. There is no established public trading market for Cyras common stock or Cyras preferred stock. CIENA common stock is quoted on the Nasdaq National Market under the symbol "CIEN." The closing price for CIENA common stock reported on the Nasdaq National Market on February 23, 2001, was $74.50 per share.

This is CIENA's prospectus relating to its offering of shares of CIENA common stock to Cyras stockholders in the proposed merger. It contains important information concerning CIENA, Cyras, the terms of the proposed merger and the conditions which must be satisfied before the merger can occur. YOU SHOULD CAREFULLY CONSIDER THE RISK FACTORS RELATING TO THE MERGER AND CIENA THAT ARE DESCRIBED STARTING ON PAGE 12 OF THIS PROSPECTUS AND PROXY STATEMENT.

In addition, holders of Cyras preferred stock are also being asked to approve the automatic conversion of their stock (other than series E preferred stock) into Cyras common stock, at the closing of the merger.

THE CYRAS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE FOR ADOPTION OF THE MERGER AGREEMENT AND APPROVAL OF THE MERGER, AND IF YOU ARE A HOLDER OF CYRAS PREFERRED STOCK, FOR THE AUTOMATIC CONVERSION OF THAT STOCK.

Your vote is important regardless of the number of shares you own. We urge you to read the enclosed materials carefully and to complete, sign and date the enclosed proxy card and return it promptly in the enclosed prepaid envelope, whether or not you plan to attend the special meeting of stockholders. Your prompt cooperation and continued support of Cyras is greatly appreciated.

Sincerely,

[Alnorr Shivji Sig]
Alnoor Shivji
President and Chief Executive Officer

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES REGULATOR HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS AND PROXY STATEMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

PROSPECTUS AND PROXY STATEMENT DATED FEBRUARY 28, 2001
FIRST MAILED TO STOCKHOLDERS ON OR ABOUT MARCH 1, 2001

CYRAS SYSTEMS, INC.
47100 Bayside Parkway

Fremont, CA 94538
(510) 623-6600

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON MARCH 29, 2001

We will hold a special meeting of stockholders of Cyras Systems, Inc. at 8:00 a.m., local time, on March 29, 2001 at the Fremont Marriott, 46100 Landing Parkway, Fremont, California 94538, to consider the following proposals:

1. The holders of common stock of Cyras, voting as a class, and the holders of preferred stock of Cyras, voting together as a class, to consider and vote on proposals:

- To approve and adopt the Agreement and Plan of Merger dated as of December 18, 2000 by and among Cyras, CIENA Corporation and CO Acquisition Corp., a wholly owned subsidiary of CIENA, a copy of which is attached as Appendix A to the accompanying prospectus and proxy statement, and to approve the merger of Cyras with CO Acquisition Corp., whereby holders of Cyras stock will receive for each share of Cyras stock held, a fraction of a share of CIENA stock based on a formula described in the attached prospectus and proxy statement and in the merger agreement;

- To ratify the appointment of Douglas Carlisle as stockholder representative to act on behalf of the stockholders in connection with the merger;

- To grant Cyras's board of directors discretionary authority to adjourn the special meeting to solicit additional votes for approval of the merger; and

- To transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

2. The holders of preferred stock of Cyras, voting together as a class, to cause the automatic conversion of the preferred stock, other than series E preferred stock, held by them into the common stock of Cyras immediately prior to the effective time of the merger.

CYRAS'S BOARD OF DIRECTORS HAS APPROVED THE MERGER AGREEMENT AND UNANIMOUSLY RECOMMENDS THAT YOU VOTE TO APPROVE AND ADOPT THE MERGER AGREEMENT AND TO APPROVE THE MERGER OF CYRAS AND CO ACQUISITION CORP., AND TO APPROVE THE AUTOMATIC CONVERSION OF CYRAS'S PREFERRED STOCK, OTHER THAN SERIES E PREFERRED STOCK, INTO CYRAS'S COMMON STOCK IMMEDIATELY PRIOR TO THE MERGER AND TO RATIFY THE APPOINTMENT OF MR. CARLISLE AS STOCKHOLDER REPRESENTATIVE.

We describe the merger more fully in the accompanying prospectus and proxy statement, which we urge you to read.

Only Cyras stockholders of record at the close of business on January 31, 2001 are entitled to notice of and to vote at the special meeting or any adjournment or postponement thereof. Any Cyras stockholder may inspect the list of the stockholders of record eligible to vote at the meeting by coming to Cyras's offices during normal business hours from March 19, 2001 through the end of the meeting.

YOUR VOTE IS IMPORTANT. TO ASSURE THAT YOUR SHARES ARE REPRESENTED AT THE SPECIAL MEETING, YOU ARE URGED TO COMPLETE, DATE AND SIGN THE ENCLOSED PROXY CARD AND MAIL IT PROMPTLY IN THE POSTAGE-PAID ENVELOPE PROVIDED. WE ENCOURAGE YOU TO DO THIS WHETHER OR NOT YOU PLAN TO ATTEND THE SPECIAL MEETING IN PERSON. YOU MAY REVOKE YOUR PROXY IN THE MANNER DESCRIBED IN THE ACCOMPANYING PROSPECTUS AND PROXY STATEMENT AT ANY TIME BEFORE IT HAS BEEN VOTED AT THE SPECIAL MEETING. IT MAY BE POSSIBLE FOR YOU TO VOTE IN PERSON AT THE SPECIAL MEETING EVEN IF YOU HAVE RETURNED A PROXY. PLEASE REVIEW THE PROSPECTUS AND PROXY STATEMENT FOR MORE INFORMATION.

By Order of the Board of Directors,

[Armando Castro Sig]
Armando Castro
General Counsel and Secretary

Fremont, California

February 28, 2001

THIS PROSPECTUS AND PROXY STATEMENT INCORPORATES BY REFERENCE CERTAIN DOCUMENTS FILED WITH THE SEC BY CIENA WHICH CONTAIN IMPORTANT BUSINESS AND FINANCIAL INFORMATION ABOUT CIENA THAT IS NOT INCLUDED IN OR DELIVERED WITH THIS PROSPECTUS AND PROXY STATEMENT. THESE DOCUMENTS ARE AVAILABLE WITHOUT CHARGE TO CYRAS STOCKHOLDERS UPON WRITTEN OR ORAL REQUEST. STOCKHOLDERS MAY REQUEST COPIES OF THESE DOCUMENTS FROM CIENA CORPORATION, 1201 WINTERSON ROAD, LINTHICUM, MARYLAND 21090, ATTN: GENERAL COUNSEL, TELEPHONE (410) 865-8500. TO OBTAIN TIMELY DELIVERY, STOCKHOLDERS MUST REQUEST THIS INFORMATION NO LATER THAN MARCH 22, 2001.

TABLE OF CONTENTS

	PAGE
QUESTIONS AND ANSWERS ABOUT THE MERGER	iii
SUMMARY	1
RISK FACTORS	12
FORWARD-LOOKING STATEMENTS	21
THE SPECIAL MEETING OF CYRAS STOCKHOLDERS	22
General	22
Date, Time and Place	22
Purpose of the Special Meeting	22
Record Date for the Special Meeting	22
Voting of Proxies at the Special Meeting and Revocation of Proxies	22
Votes Required for Approval and Adoption of the Merger Agreement and Approval of the Merger	23
Quorum and Abstentions	24
Solicitation of Proxies and Expenses	24
Board Recommendation	24
THE MERGER	26
General	26
Background of the Merger	26
CIENA's Reasons for the Merger	29

Recommendation of the Cyras Board and Reasons for the Merger..... 31
Opinion of Cyras's Financial Advisor..... 34
Interests of Cyras Officers and Directors in the Merger..... 40
Accounting Treatment..... 41
Listing on the Nasdaq National Market..... 41
Governmental and Regulatory Approvals..... 41
Federal Income Tax Consequences..... 42
Appraisal Rights of Dissenting Stockholders of Cyras... 43
Cyras 4 1/2% Convertible Subordinated Notes Due August 15, 2005..... 45
TERMS OF THE MERGER AGREEMENT AND RELATED TRANSACTIONS..... 46
General..... 46
Structure of the Merger..... 46
Management After the Merger..... 46
Conversion of Cyras Preferred Stock and Common Stock... 46
Options Granted Outside the Conversion Formula..... 48
Preferred Stock Purchase Rights..... 48
Treatment of Options and Warrants..... 48
Exchange of Certificates; Fractional Shares..... 48
Effective Time..... 49
Representations and Warranties..... 50
Business of Cyras Pending the Merger; Other Agreements..... 51
No Solicitation by Cyras..... 53
Additional Agreements of CIENA and Cyras..... 54
Indemnification and Escrow Arrangement..... 54
Directors' and Officers' Insurance and Indemnification..... 55
Conditions Precedent to Each Party's Obligation to Effect the Merger..... 55
Conditions Precedent to Obligations of CIENA..... 55
Conditions Precedent to Cyras's Obligations..... 56
Termination of the Merger Agreement..... 56
Waiver and Amendment of the Merger Agreement..... 57
Expenses..... 57

PAGE

Stockholder Agreements..... 58
Restrictions on Resales by Affiliates..... 59
UNAUDITED PRO FORMA COMBINED FINANCIAL DATA..... 60
UNAUDITED PRO FORMA COMBINED BALANCE SHEET..... 61
UNAUDITED PRO FORMA COMBINED STATEMENT OF OPERATIONS..... 62
NOTES TO UNAUDITED PRO FORMA COMBINED FINANCIAL DATA..... 64
INFORMATION ABOUT CIENA..... 66
General..... 66
Additional Information..... 66
INFORMATION ABOUT CYRAS..... 67
Business..... 67
Management's Discussion and Analysis of Financial Condition and Results of Operations..... 75

CERTAIN TRANSACTIONS..... 79
STOCK OWNERSHIP OF MANAGEMENT, DIRECTORS AND MORE THAN FIVE PERCENT STOCKHOLDERS OF CIENA..... 80
SECURITY OWNERSHIP OF DIRECTORS, EXECUTIVE OFFICERS AND MORE THAN FIVE PERCENT STOCKHOLDERS OF CYRAS..... 81
COMPARISON OF STOCKHOLDER RIGHTS..... 83
General..... 83
Capitalization..... 83
Voting Rights..... 83
Number and Classification of Directors..... 84
Removal of Directors..... 84
Filling Vacancies on the Board of Directors..... 84
Charter Amendments..... 85
Amendments to Bylaws..... 85
Action by Written Consent..... 85
Notice of Stockholder Actions..... 85
Right to Call Special Meeting of Stockholders..... 85
Dividends..... 86
Liquidation Rights..... 86
Conversion and Redemption..... 86
Registration Rights..... 87
Additional Rights of Cyras Stockholders..... 89
Stockholder Rights Plan..... 90
TRANSFER AGENT AND REGISTRAR..... 90
OTHER MATTERS..... 91
Legal Matters..... 91
Experts..... 91
Other Matters..... 91
WHERE YOU CAN FIND MORE INFORMATION..... 91
APPENDIX A AGREEMENT AND PLAN OF MERGER
APPENDIX B SECTION 262 OF THE DELAWARE GENERAL CORPORATION LAW
APPENDIX C FORM OF ESCROW AGREEMENT
APPENDIX D FORM OF STOCKHOLDER AGREEMENT
APPENDIX E OPINION OF CYRAS'S FINANCIAL ADVISOR

QUESTIONS AND ANSWERS ABOUT THE MERGER

Q: WHEN AND WHERE WILL THE SPECIAL MEETING TAKE PLACE?

A: The special meeting will be held on March 29, 2001, at 8:00 a.m., local time, at the Fremont Marriott, 46100 Landing Parkway, Fremont, California 94538.

Q: WHAT DO I NEED TO DO NOW?

A: You should carefully read and consider the information contained in this prospectus and proxy statement. You should then complete and sign your proxy and return it in the enclosed return envelope as soon as possible so that your shares will be represented at Cyras's special meeting. If you sign, date and mail your proxy card without identifying how you want to vote, your proxy will be voted "FOR" the merger, "FOR" approval of conversion of the Cyras preferred stock (other than the series E preferred stock) and "FOR" ratification of the appointment of Douglas Carlisle as stockholder representative. If you do not vote, it will have the same effect as a vote

"AGAINST" the proposals. You may also vote by appearing at the meeting and vote in person.

Q: WHO MUST APPROVE THE MERGER?

A: The holders of a majority of the common stock of Cyras voting as a class, and holders of a majority of the preferred stock of Cyras, voting together as a single class, must approve and adopt the merger agreement and approve the merger. The approvals of the boards of directors of CIENA, CIENA's wholly-owned subsidiary, CO Acquisition Corp., and Cyras, and the approval of the sole stockholder of CO Acquisition Corp. have already been obtained.

Q: CAN I CHANGE MY VOTE AFTER I MAIL MY SIGNED PROXY?

A: Yes. You can change your vote at any time before your proxy is voted at the special meeting of Cyras's stockholders. You can do this in one of three ways. First, you can deliver a written notice stating that you would like to revoke your proxy. Second, you can complete and deliver a new proxy. If you choose either of these two methods, you must deliver your notice of revocation or your new proxy for Cyras shares at the Cyras address on page 1 BEFORE YOUR PROXY IS VOTED. Third, you can attend the special meeting of Cyras's stockholders and vote in person.

Q: SHOULD I SEND IN MY CYRAS STOCK CERTIFICATES NOW?

A: No, you should not send in your Cyras stock certificates with your proxy. You will receive instructions for exchanging your Cyras stock certificates if the merger is consummated.

Q: WHO CAN HELP ANSWER MY QUESTIONS?

A: If you have any questions about the merger or if you need additional copies of this prospectus and proxy statement or the enclosed proxy, you should contact Cyras's General Counsel at (510) 623-6600.

SUMMARY

This summary highlights selected information from this prospectus and proxy statement. You should carefully read the entire prospectus and proxy statement and the other documents to which this document refers you to fully understand the merger. See "Where You Can Find More Information" on page 90.

THE COMPANIES (PAGE 65)

CIENA CORPORATION
1201 Winterson Road
Linthicum, Maryland 21090
(410) 865-8500

CIENA is an established leader in the rapidly growing intelligent optical networking equipment market. We offer a comprehensive portfolio of products for communications service providers worldwide, including long-distance and metropolitan optical transport, intelligent optical core switching and network

management solutions. CIENA's customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers and wholesale carriers. We have pursued a strategy to develop and leverage the power of our technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers. Furthermore, our products allow service providers to optimize their investments in fiber-optic infrastructure while positioning them to easily transition to next-generation optical network architectures.

CYRAS SYSTEMS, INC.
47100 Bayside Parkway
Fremont, CA 94538
(510) 623-6600

Cyras, a development stage company founded in July 1998, designs, develops and markets next generation optical networking solutions for telecommunications carriers. The Cyras K2 product is designed to deliver the functionality of multiple pieces of equipment in a single platform, the network optimization and efficiency required in today's increasingly data-oriented environment and the cost-effectiveness and scalability that carriers demand. By deploying Cyras's products in their networks, carriers can optimize their use of existing capacity, transport data in native form without undergoing wasteful processing and more precisely allocate bandwidth to the parameters of the traffic being transported. The K2 product is designed to provide carriers with a solution that can be rapidly implemented with substantially less expensive initial capital investment and anticipated lower lifecycle costs, as compared to traditional transport systems. The K2 product is still in development and is not commercially available, and Cyras has not recognized revenues to date from any product sales.

VOTE REQUIRED (PAGE 22)

Holders of a majority of the outstanding shares of Cyras common stock, and holders of a majority of the outstanding shares of all series of Cyras preferred stock, voting together as a class, must vote in favor of adoption of the merger agreement before the merger can occur. There were 62,195,944 shares of Cyras common stock and 137,855,817 shares of Cyras preferred stock, comprised of 7,200,000 shares of Cyras series A preferred stock, 70,143,996, shares of Cyras series B preferred stock, 52,646,118 shares of Cyras series C preferred stock, 7,594,947 shares of Cyras series D preferred stock and 270,756 shares of Cyras series E preferred stock outstanding as of the record date. Each holder of Cyras common stock is entitled to one vote per share and each holder of Cyras preferred stock is entitled to one vote for each full share of common stock into which its shares are convertible.

In connection with the merger agreement, CIENA and several Cyras stockholders beneficially owning in the aggregate 36,648,543 shares of common stock, representing approximately 58.9% of the outstanding Cyras common stock entitled to vote at the special meeting and 55,616,994 shares of Cyras preferred stock, representing approximately 40.3% of the outstanding preferred stock entitled to vote at the special meeting, entered into agreements under which they agreed to vote their shares in favor of the merger and approval of the merger agreement.

The form of this stockholder agreement is attached as Appendix D to this prospectus and proxy statement.

GRANT OF OPTION TO CIENA (PAGE 57)

Cyras officers, directors and their affiliates owning in the aggregate 36,648,543 shares of Cyras common stock, representing approximately 58.9% of the outstanding Cyras common stock as of the record date and 55,616,994 shares of Cyras preferred stock, representing approximately 40.3% of the outstanding preferred stock as of the record date, have granted to CIENA an option to purchase their Cyras shares. The option is exercisable under several circumstances, including those when Cyras is required to pay CIENA the $80 million termination fee provided for under the merger agreement. CIENA required these stockholders to deliver the option as a condition to CIENA's willingness to enter into the merger agreement. Although the number of shares of Cyras capital stock subject to the option is not sufficient to ensure the approval of the merger with CIENA, if the option is exercised following receipt of a competing offer to purchase the capital stock of Cyras, CIENA's consent may be required to complete the closing of that alternative transaction.

THE MERGER (PAGE 25)

WHY CYRAS'S BOARD RECOMMENDS THE MERGER (PAGE 30)

The board of directors of Cyras unanimously recommends that its stockholders vote "FOR" the approval and adoption of the merger agreement and approval of the merger. See "The Special Meeting of Cyras Stockholders -- Board Recommendation" for the reasons supporting the Cyras board's recommendations.

TOTAL CONSIDERATION CIENA WILL PAY

At the effective time of the merger, CIENA will issue 27,000,000 shares of its common stock in exchange for all of Cyras's outstanding common stock and preferred stock, plus an additional number of shares of CIENA common stock to reflect the consideration that Cyras is entitled to receive in exchange for outstanding stock options and warrants. CIENA has calculated that the maximum number of CIENA shares that will be issued or reserved for issuance upon the exercise of Cyras stock options and warrants is 28,134,000, which, as of February 1, 2001, have an aggregate value of approximately $2,534,000,000. CIENA also will indirectly assume the $150,000,000 aggregate principal amount 4 1/2% convertible subordinated notes of Cyras, and these notes will be convertible into CIENA common stock, as described under "The Merger -- Cyras 4 1/2% Convertible Subordinated Notes Due August 15, 2005."

WHAT YOU WILL RECEIVE IN THE MERGER (PAGE 45)

In the merger, you will receive a fraction of a share of CIENA common stock for each share of Cyras common stock or preferred stock that you own, in each case as determined by application of the formulas set forth under "Terms of the Merger Agreement and Related Transactions -- Conversion of Cyras Preferred Stock and Common Stock." You will receive cash for any fractional share of CIENA common stock that you would otherwise receive in the merger.

For purposes of the following examples, we have assumed that the holders of Cyras series A, B, C and D preferred stock will vote in favor of automatic conversion of their shares into Cyras common stock immediately prior to the effectiveness of the merger, but that holders of Cyras series E preferred stock will not elect to convert their shares because the expected proceeds of the merger with CIENA is expected to result in a substantially higher price per share for the series A, B, C and D preferred stockholders, but is expected to result in a lower price per share for the series E preferred stockholders. To illustrate, if the merger had occurred on February 1, 2001, when the CIENA stock price for purpose of the conversion formula was $90.0625, holders of Cyras common stock would have received approximately 0.13 of a share of CIENA common stock for each share of Cyras common stock that they own, having a per share value as of that date of $11.33. Because the liquidation preference of the Cyras series E preferred stock is $18.467, the holders of the series E preferred stock will receive more shares of CIENA common stock by electing not to convert their shares into Cyras common stock unless the closing price for CIENA common stock used to determine the per share consideration at closing exceeds approximately $147 per share. By contrast, a holder of Cyras series D preferred stock, which has a liquidation preference of $2.695 per share, will receive more shares of CIENA common stock by electing to convert its shares into Cyras common stock unless the closing price for CIENA common stock used to determine the

per share consideration at closing is less than approximately $21.40 per share.

For holders of Cyras common stock (including shares of common stock issued on conversion of Cyras preferred stock):

The following chart gives a few examples of the number of shares of CIENA common stock that a holder of 100 shares of Cyras common stock would receive in the merger given the range of average closing prices of CIENA common stock and the value of those shares at these prices. The chart does not include cash received for fractional shares or cash paid in respect of dissenting shares.

AVERAGE CLOSING PRICE OF CIENA COMMON STOCK	NUMBER OF SHARES OF CIENA COMMON STOCK ISSUED AT CLOSING	VALUE OF SHARES OF CIENA COMMON STOCK ISSUED AT CLOSING
$70.00	12	$ 840
$80.00	12	$ 960
$90.00	12	$1,080
$100.00	12	$1,200
$110.00	12	$1,320
$120.00	12	$1,440
$130.00	12	$1,560

For holders of Cyras series E preferred stock:

The following chart gives a few examples of the number of shares of CIENA common stock that a holder of 100 shares of Cyras series E preferred stock would receive in the merger given the range of average closing prices of CIENA common

stock and the value of those shares at these prices. The chart does not include cash received for fractional shares or cash paid in respect of dissenting shares.

AVERAGE CLOSING PRICE OF CIENA COMMON STOCK	NUMBER OF SHARES OF CIENA COMMON STOCK ISSUED AT CLOSING	VALUE OF SHARES OF CIENA COMMON STOCK ISSUED AT CLOSING
$70.00	26	$1,847
$80.00	23	$1,847
$90.00	20	$1,847
$100.00	18	$1,847
$110.00	16	$1,847
$120.00	15	$1,847
$130.00	14	$1,847

Ten percent of the CIENA common stock that each Cyras stockholder would otherwise be entitled to receive will be deposited in an escrow account that may be used to compensate CIENA if it is entitled to indemnification under the merger agreement. Any escrowed shares not used to indemnify CIENA and which are not subject to an unresolved claim for indemnification by CIENA will be distributed to each Cyras stockholder following the first anniversary of the consummation of the merger. See below under "Indemnification and Escrow Agreement."

The Cyras certificate of incorporation provides that all outstanding shares of Cyras preferred stock will automatically convert into common stock as a result of the merger if holders of more than 66 2/3% of the outstanding preferred stock approve the automatic conversion. However, a separate vote of the holders of the series E preferred stock is required to approve the conversion of the series E preferred stock if the proceeds to Cyras stockholders on a per share basis are less than the series E conversion price, which currently is $18.467. In the unlikely event that the holders of Cyras preferred stock (other than the series E preferred stock) do not elect to convert their shares, the aggregate number of shares of CIENA common stock issued in the merger will not be reduced, but the exchange ratio applicable to the Cyras common stock will be increased, resulting in the Cyras common stock holders receiving proportionately more of the merger consideration.

PLEASE DO NOT SEND YOUR STOCK CERTIFICATES AT THIS TIME.

APPRAISAL RIGHTS OF DISSENTING STOCKHOLDERS (PAGE 42)

IF YOU OBJECT TO THE MERGER, DELAWARE LAW PERMITS YOU TO SEEK RELIEF AS A DISSENTING STOCKHOLDER AND HAVE THE "FAIR VALUE" OF YOUR SHARES OF CYRAS COMMON STOCK AND CYRAS PREFERRED STOCK DETERMINED BY A COURT AND PAID TO YOU IN CASH. CIENA WILL NOT BE OBLIGATED TO COMPLETE THE MERGER IF HOLDERS OF MORE THAN 2% OF CYRAS'S STOCK EXERCISE THESE APPRAISAL RIGHTS.

If you are a Cyras stockholder and wish to dissent, you must deliver to Cyras, prior to the vote on the merger at the special meeting, a written demand for appraisal of your shares. You also must not vote in favor of the merger agreement. To not vote in favor of the merger agreement, you can either:

- vote "no" in person at the special meeting or by proxy;

- abstain from voting;

- fail to vote; or

10

- revoke your proxy, if you returned a duly executed proxy that did not contain voting instructions.

Beneficial owners of shares of Cyras common stock or Cyras preferred stock whose shares are held of record by another person, such as a broker, bank or nominee, and who wish to seek appraisal, should instruct the record holder to follow the appraisal procedures of Delaware law. The relevant provisions of Delaware law are technical in nature and complex. If you wish to exercise appraisal rights and obtain appraisal of the fair value of your shares, you may wish to consult with legal counsel, because the failure to comply strictly with these provisions may result in waiver or forfeiture of your appraisal rights.

A copy of the relevant section of Delaware law governing this process is attached as Appendix B to this prospectus and proxy statement.

INDEMNIFICATION AND ESCROW AGREEMENT (PAGE 53)

If the merger occurs, all holders of Cyras capital stock who have not elected the appraisal rights described above, will be obligated to indemnify CIENA and its affiliates against losses due to the breach or inaccuracy of any of Cyras's representations or warranties, or breach of any Cyras agreements in the merger agreement. This obligation is limited to 10% of the total number of shares of CIENA common stock issued in the merger to the holders of Cyras capital stock. An escrow arrangement will be established at closing to hold this 10% amount. Stockholders will have a one time right to elect to instruct the escrow agent to sell their escrow shares and hold the proceeds in the escrow account. Subject to ratification by the stockholders, Douglas Carlisle will serve as Stockholder Representative to administer the escrow on behalf of all former Cyras stockholders. The escrow and indemnification obligations will end one year after closing. At that time, the escrowed shares will be released to the former Cyras stockholders, reduced by any claims paid to CIENA. See "Terms of the Merger Agreement and Related Transactions -- Indemnification and Escrow Arrangement."

CONSEQUENTLY, IN SOME CIRCUMSTANCES YOU COULD BE REQUIRED TO FORFEIT TO CIENA SOME OF THE CIENA COMMON STOCK YOU WOULD OTHERWISE RECEIVE IN THE MERGER.

WHAT IS NEEDED TO COMPLETE THE MERGER (PAGE 53)

Several conditions must be satisfied before the merger will be completed. These include:

- approval of the merger by the Cyras stockholders;

- receipt by Cyras and CIENA of opinions of tax counsel, described further below; and

- exercise of appraisal rights by holders of no more than 2% of Cyras's

stock.

If the law permits, CIENA or Cyras may each waive any or all of the conditions for the benefit of its company and stockholders and complete the merger even though one or more of these conditions have not been met. If a material condition is waived, Cyras intends to resolicit your vote. We cannot assure you that the conditions will be satisfied or waived or that the merger will occur.

FEDERAL INCOME TAX CONSEQUENCES (PAGE 41)

CIENA has received an opinion from Hogan & Hartson LLP, its counsel, and Cyras has received an opinion from Brobeck, Phleger & Harrison LLP, its counsel, that the merger will qualify as a reorganization under Section 368(a) of the Internal Revenue Code which means that Cyras stockholders will not recognize any federal income tax gain or loss as a result of the merger, except with respect to cash received in lieu of fractional shares and cash received in exchange for Cyras shares by Cyras stockholders who dissent to the merger. Both Cyras's and CIENA's obligations to complete the merger are subject to their receiving confirming legal opinions at closing that the merger will qualify as a reorganization under Section 368(a) of the Internal Revenue Code. You should read "The Merger -- Federal Income Tax Consequences" carefully, since different tax consequences may apply to you because of your individual circumstances or because special tax rules apply to you.

THESE MATTERS ARE VERY COMPLICATED. YOU SHOULD CONSULT YOUR TAX ADVISOR FOR A FULL EXPLANATION OF THE TAX CONSEQUENCES OF THE MERGER TO YOU.

DIFFERENCES IN THE RIGHTS OF STOCKHOLDERS (PAGE 82)

If the merger is completed and you do not elect appraisal rights, you will become a stockholder of CIENA. Your rights would continue to be gov-

erned by Delaware law but your rights would be governed by CIENA's certificate of incorporation and bylaws, rather than Cyras's certificate of incorporation and bylaws. Your rights as a stockholder of CIENA will differ from your rights as a stockholder of Cyras. To review these differences in more detail, see "Comparison of Stockholder Rights" on page 82.

TERMINATION OF THE MERGER AGREEMENT; EXPENSES (PAGE 55)

CIENA and Cyras may mutually agree at any time to terminate the merger agreement without completing the merger, even if the Cyras stockholders have approved it. Either party, so long as it has not materially breached the merger agreement, may terminate the merger if:

- the merger has not been consummated by June 30, 2001;

- Cyras stockholders do not approve the merger; or

- a court or any regulatory authority forbids the merger to occur.

Cyras may terminate the merger agreement prior to obtaining stockholder approval, so long as it has not breached the merger agreement, if:

- the Cyras board of directors determines to pursue another transaction that it believes to be superior to the merger, and

- CIENA does not match the offer made in the other transaction.

CIENA may also terminate the merger agreement if Cyras's board of directors withdraws, modifies or amends, in any respect adverse to CIENA, its recommendation in favor of the merger or determines to pursue another superior transaction.

Cyras has agreed to pay CIENA a termination fee of $80 million if the merger agreement is terminated under either of these circumstances and specified other circumstances if a third party has made a proposal to acquire Cyras. The merger agreement also requires Cyras to reimburse CIENA for its out-of-pocket expenses, up to a maximum of $1.5 million, in those situations where the termination fee is payable.

OPINION OF CYRAS'S FINANCIAL ADVISOR (PAGE 33)

Cyras's financial advisor, Credit Suisse First Boston Corporation, has delivered a written opinion to the Cyras board of directors as to the fairness, from a financial point of view, to the holders of Cyras common stock, other than affiliates of Cyras, of the common stock exchange ratio provided for in the merger. The full text of Credit Suisse First Boston's written opinion, dated December 18, 2000, is attached to this document as Appendix E. We encourage you to read this opinion carefully in its entirety for a description of the procedures followed, assumptions made, matters considered and limitations on the review undertaken. CREDIT SUISSE FIRST BOSTON'S OPINION IS DIRECTED TO THE CYRAS BOARD OF DIRECTORS AND DOES NOT CONSTITUTE A RECOMMENDATION TO ANY STOCKHOLDER AS TO ANY MATTERS RELATING TO THE MERGER.

SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA OF CIENA

The information in the following selected consolidated financial data is derived from CIENA's audited consolidated financial statements. You should read this information in conjunction with such financial statements and the notes to the consolidated financial statements, which are incorporated by reference in this prospectus and proxy statement. See "Where You Can Find More Information" on page 90. CIENA's financial statements as of October 31, 1999 and 2000, and for each of the three years ended October 31, 2000 were audited by PricewaterhouseCoopers LLP, independent accountants. Reflected financial information as of January 31, 2000 and 2001 is derived from CIENA's unaudited consolidated financial statements, which are incorporated into this prospectus and proxy statement by reference. CIENA has a 52 or 53 week fiscal year which ends on the Saturday nearest to the last day of October in each year. For purposes of financial statement presentation each fiscal year is described as having ended on October 31. Fiscal 1997, 1998, 1999 and 2000 comprised 52 weeks and fiscal 1996 comprised 53 weeks. Historical results are not necessarily indicative of the results to be expected in the future and results of interim periods are not necessarily indicative of the results of the entire year.

	YEAR ENDED OCTOBER 31,					
	1996	1997	1998	1999	2000	
	(IN THOUSANDS, EXCEPT PER SHARE DATA)					
STATEMENT OF OPERATIONS DATA:						
Revenue	$88,463	$413,215	$508,087	$482,085	$858,750	$
Cost of goods sold	47,315	166,472	256,014	299,769	477,393	
Gross profit	41,148	246,743	252,073	182,316	381,357	
Operating expenses:						
Research and development	8,922	23,773	73,756	104,641	129,069	
Selling and marketing	5,641	22,627	47,343	61,603	90,922	
General and administrative	6,346	11,476	18,468	22,736	34,000	
Settlement of accrued contract obligation	--	--	--	--	(8,538)	
Purchased research and development	--	--	9,503	--	--	
Pirelli litigation	--	7,500	30,579	--	--	
Merger related costs	--	--	2,548	13,021	--	
Provision for doubtful accounts	76	489	806	250	28,010	
Total operating expenses	20,985	65,865	183,003	202,251	273,463	
Income (loss) from operations	20,163	180,878	69,070	(19,935)	107,894	
Other income (expense), net	653	7,178	12,830	13,944	12,680	
Income (loss) before income taxes	20,816	188,056	81,900	(5,991)	120,574	
Provision (benefit) for income taxes	3,553	72,488	36,200	(2,067)	39,187	
Net income (loss)	$17,263	$115,568	$ 45,700	$ (3,924)	$ 81,387	
Basic net income (loss) per common share	$ 0.62	$ 0.76	$ 0.19	$ (0.01)	$ 0.29	$
Diluted net income (loss) per common and dilutive potential common share	$ 0.09	$ 0.55	$ 0.18	$ (0.01)	$ 0.27	$
Weighted average basic common shares outstanding	27,634	151,928	235,980	267,042	281,621	
Weighted average basic common and dilutive potential common shares outstanding	184,814	209,686	255,788	267,042	299,662	

	OCTOBER 31,					JA
	1996	1997	1998	1999	2000	2000
	(IN THOUSANDS)					
BALANCE SHEET DATA:						
Cash and cash equivalents	$24,040	$273,286	$250,714	$143,440	$ 143,187	$148,32

Working capital.....	42,240	338,078	391,305	427,471	639,675	456,08
Total assets.....	79,676	468,247	602,809	677,835	1,027,201	707,15
Long-term obligations, excluding current portion.....	3,465	1,900	3,029	4,881	4,882	5,08
Mandatorily redeemable preferred stock.....	40,404	--	--	--	--	-
Stockholders' equity.....	10,783	377,278	501,036	530,473	809,835	562,72

13

SELECTED HISTORICAL FINANCIAL DATA OF CYRAS

The following selected financial data should be read in conjunction with Cyras's financial statements and notes thereto and "Information About Cyras -- Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus and proxy statement. The statement of operations data for the period from July 24, 1998 (inception) to December 31, 1998, for the years ended December 31, 1999 and 2000 and for the period from July 24, 1998 (inception) to December 31, 2000, and the balance sheet data as of December 31, 1999 and 2000 are derived from Cyras's financial statements that have been audited by Deloitte & Touche LLP, independent auditors, and are included elsewhere in this registration statement. The balance sheet data as of December 31, 1998 are derived from Cyras's financial statements that have been audited by Deloitte & Touche LLP, independent auditors, that are not included in this registration statement. Historical results are not necessarily indicative of the results to be expected in the future and results of interim periods are not necessarily indicative of results of the entire year.

	PERIOD FROM JULY 24, 1998 (INCEPTION) TO DECEMBER 31, 1998	YEAR ENDED DECEMBER 31, 1999	YEAR ENDED DECEMBER 31, 2000	PER JULY (INC DECEMB
		(IN THOUSANDS)		
STATEMENT OF OPERATIONS DATA:				
Operating expenses:				
Research and development...	$526	$ 9,345	$ 50,989	$
Sales and marketing.....	78	493	8,515	
General and administrative.....	190	2,265	9,420	
Amortization of deferred stock compensation.....	--	59	34,989	
Total operating expenses.....	794	12,162	103,913	1
Interest (income) expense, net.....	(69)	(436)	5,004	
Loss before income tax expense.....	725	11,726	108,917	1
Income tax expense.....	1	1	1	
Net loss.....	$726	$11,727	108,918	1

	DECEMBER 31,		
	1998	1999	2000
		(IN THOUSANDS)	
BALANCE SHEET DATA:			
Cash and cash equivalents	$3,877	$ 42,663	$ 42,672
Working capital	7,730	43,985	127,415
Total assets	8,827	51,107	167,400
Long-term obligations, excluding current portion		2,834	158,025
Convertible preferred stock	9,031	55,947	67,312
Stockholders' deficit	(698)	(12,014)	(81,925)

SELECTED UNAUDITED PRO FORMA COMBINED FINANCIAL DATA

The following selected unaudited pro forma combined financial data present the effect of the pending merger between CIENA and Cyras as if the merger had been completed on November 1, 1999 for results of operations purposes and on January 31, 2001 for balance sheet purposes. The pro forma combined balance sheet is based upon the historical consolidated balance sheet data of CIENA as of January 31, 2001, and the historical balance sheet data of Cyras as of December 31, 2000. The pro forma year ended October 31, 2000 combined statement of operations includes the historical consolidated statement of operations data of CIENA for the year ended October 31, 2000 and the combined historical statement of operations data of Cyras for the three months ended December 31, 1999 and the nine months ended September 30, 2000. The pro forma quarter ended January 31, 2001 combined statement of operations includes the consolidated statement of operations data from CIENA for the quarter ended January 31, 2001 and the statement of operations data from Cyras for the three months ended December 31, 2000.

The unaudited pro forma combined financial data is based on estimates and assumptions which are preliminary and have been made solely for the purposes of developing these unaudited pro forma combined financial data. The unaudited pro forma combined financial data is not necessarily an indication of the results that would have been achieved had the transaction been consummated as of the dates indicated or results that may be achieved in the future.

These selected unaudited pro forma combined financial data should be read in conjunction with the unaudited pro forma combined financial data, the historical consolidated financial statements and notes thereto of CIENA, and other financial information pertaining to CIENA including "CIENA Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" incorporated by reference, and the historical financial statements and notes thereto of Cyras, and other financial information pertaining to Cyras including "Information About Cyras -- Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" included herein.

(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

	YEAR ENDED OCTOBER 31, 2000	QUARTER ENDED JANUARY 31, 2001
SELECTED UNAUDITED PRO FORMA COMBINED STATEMENT OF OPERATIONS DATA:		
Revenue	$ 858,750	$ 351,989
Cost of goods sold	477,393	191,837
Gross profit	381,357	160,152
Operating expenses		
Research and development	202,644	77,059
Selling and marketing	120,807	40,052
General and administrative	56,939	20,895
Settlement of accrued contract obligation	(8,538)	--
Amortization of intangibles	238,854	59,714
Provision for doubtful accounts	28,010	--
Total operating expenses	638,716	197,720
Loss from operations	(257,359)	(37,568)
Interest and other income (expense), net	16,562	6,978
Interest expense	(2,078)	(2,870)
Interest expense -- accretion of redemption	(2,131)	(4,262)
Loss before income taxes	(245,006)	(37,722)
Provision for income taxes	--	7,367
Net loss	$(245,006)	$ (45,089)
Basic net loss per common share	$ (0.81)	$ (0.15)
Diluted net loss per common and dilutive potential common share	$ (0.81)	$ (0.15)
Weighted average basic common shares outstanding	303,407	308,787
Weighted average basic common and dilutive potential common shares outstanding	303,407	308,787
SELECTED UNAUDITED PRO FORMA COMBINED BALANCE SHEET DATA:		
Cash and cash equivalents		$ 219,397
Working capital		849,846
Intangible assets		1,666,965
Total assets		3,029,822
Convertible subordinated notes and other long-term obligations, excluding current portion		163,011
Stockholders' equity		$2,556,018

COMPARATIVE PER SHARE DATA
(UNAUDITED)

The following table reflects the historical net income and book value per share of CIENA common stock and the historical net loss and book value per share of Cyras common stock in comparison with the unaudited pro forma net loss and book value per share after giving effect to the pending merger of CIENA and Cyras. The information presented in the following table should be read in conjunction with the unaudited pro forma combined financial data and the CIENA historical consolidated financial statements and Cyras historical financial statements incorporated by reference or included elsewhere in this prospectus and proxy statement.

	YEAR ENDED OCTOBER 31, 2000	QUARTER ENDED JANUARY 31, 2001
CIENA HISTORICAL PER SHARE DATA:		
Basic net income per common share	$ 0.29	$ 0.19
Diluted net income per common and dilutive potential common share	$ 0.27	$ 0.18
Book value per share at period end(1)	$ 2.83	$ 3.20
CYRAS HISTORICAL PER SHARE DATA:		
Basic net loss per common share(2)	$(2.85)	$(1.77)
Diluted net loss per common and dilutive potential common share(2)	$(2.85)	$(1.77)
Book value per share at period end	$(0.74)	$(1.32)
UNAUDITED PRO FORMA COMBINED CIENA:(3)		
Basic net loss per common share	$(0.81)	$(0.15)
Diluted net loss per common and dilutive potential common share	$(0.81)	$(0.15)
Book value per share at period end(4)	$ --	$ 8.16
EQUIVALENT PRO FORMA COMBINED CYRAS:(5)		
Basic net loss per common share	$(0.10)	$(0.02)
Diluted net loss per common and dilutive potential common share	$(0.10)	$(0.02)
Book value per share at period end	$ --	$ 1.03

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(1) CIENA's book value per share is computed by dividing stockholders' equity by the number of shares of common stock outstanding at October 31, 2000 and January 31, 2001.

(2) Cyras's basic and diluted net loss per share is computed using the weighted average number of common shares outstanding during the period from October 1, 1999 to September 30, 2000 and during the period from October 1, 2000 to December 31, 2000. Common equivalent shares are excluded from the computation as their effect is antidilutive.

(3) Pro forma combined per share CIENA information for year ended October 31, 2000 combines financial information of CIENA for the year ended October 31, 2000 with the financial information of Cyras for the period from October 1, 1999 to September 30, 2000. Pro forma combined per share CIENA information for quarter ended January 31, 2000 combines financial information of CIENA for the quarter ended January 31, 2000 with the financial information of Cyras for the period from October 1, 2000 to December 31, 2000. This information also assumes the merger occurred as of November 1, 1999 and was accounted for using the purchase method.

(4) Pro forma combined book value per share is computed by dividing pro forma stockholders' equity at January 31, 2001 by the pro forma number of shares of CIENA common stock which would have been outstanding had the merger been consummated as of January 31, 2001.

(5) The equivalent pro forma combined Cyras information is calculated by multiplying the CIENA pro forma combined per share amounts by an estimated exchange ratio of 0.13 per share. The actual exchange ratio will not be determined until the closing date of the merger.

17

COMPARATIVE MARKET DATA

CIENA common stock is, and the shares of CIENA common stock offered to Cyras stockholders are expected to be, listed on the Nasdaq National Market and traded under the symbol "CIEN." The following table sets forth the high and low sales price per share of CIENA common stock as reported by the Nasdaq National Market for the periods indicated, adjusted to reflect the two-for-one stock split of the common stock of CIENA, which became effective on September 18, 2000.

	PRICE RANGE OF COMMON STOCK	
	HIGH	LOW
Fiscal Year ending October 31, 1998		
First Quarter	$ 31.78	$23.72
Second Quarter	$ 29.13	$18.63
Third Quarter	$ 46.19	$23.44
Fourth Quarter	$ 37.94	$ 4.06
Fiscal Year ending October 31, 1999		
First Quarter	$ 11.50	$ 6.22
Second Quarter	$ 14.63	$ 8.31
Third Quarter	$ 18.88	$11.35
Fourth Quarter	$ 21.41	$14.53
Fiscal Year ending October 31, 2000		
First Quarter	$ 39.69	$16.75
Second Quarter	$ 94.50	$30.03
Third Quarter	$ 90.13	$44.94
Fourth Quarter	$151.00	$64.19
Fiscal Year ending October 31, 2001		
First Quarter	$121.38	$59.56
Second Quarter (through February 23, 2001)	$120.81	$65.75

On December 18, 2000, the last full trading day prior to the public announcement of execution of the merger agreement the closing sale price for CIENA common stock was $96.38. On February 27, 2001, the last full trading day for which information was available prior to the printing of this prospectus and proxy statement, the closing sale price for CIENA common stock was $69.75. The market prices of CIENA's common stock are subject to fluctuation. As a result, you are urged to obtain current market annotations for CIENA shares.

As of February 23, 2001, there were 1,466 holders of record of CIENA common stock.

CYRAS. There is no established public trading market for Cyras common stock or Cyras preferred stock. The Cyras 4 1/2% convertible subordinated notes trade on the PORTAL market.

COMPARISON. The following table shows (1) closing prices for CIENA common stock and (2) the estimated value of the CIENA common stock into which Cyras common and preferred stock is to be exchanged in the merger, on an equivalent per share basis calculated, as if the merger had occurred on the dates shown:

DATE	CIENA COMMON STOCK ACTUAL PRICE	CYRAS COMMON STOCK EQUIVALENT PER SHARE	CYRAS SERIES E PREFER STOCK EQUIVALENT PER SHARE
December 18, 2000	$96.38	$12.09	$18.47
February 23, 2001	$74.50	$ 9.39	$18.47

RISK FACTORS

You should carefully consider the following risk factors relating to the merger and to ownership of CIENA common stock before you decide whether to vote to approve and adopt the merger agreement and approve the merger.

RISKS RELATING TO THE MERGER

THE VALUE OF THE CIENA COMMON STOCK YOU MAY RECEIVE IN THE MERGER WILL DEPEND ON ITS MARKET PRICE AT THE TIME OF THE MERGER, AND NO ADJUSTMENT WILL BE MADE IF THAT MARKET PRICE DECLINES.

The value of the CIENA stock that you will receive in the merger depends on the market price of CIENA common stock. The market price of CIENA common stock is extremely volatile and has fluctuated over a wide range. From December 18, 2000 to February 23, 2001, the CIENA common stock traded as high as $108.625 per share and as low as $59.5625 per share. The market price may continue to fluctuate significantly in response to various factors, including:

- quarterly variations in operating results or growth rates;
- changes in estimates by securities analysts;
- market conditions in the industry;
- announcements and actions by competitors;
- regulatory and judicial actions; and
- general economic conditions.

Due to these fluctuations, it is unlikely that, at the time you vote, you

will have any certainty of the value of the CIENA stock that you will receive in the merger. In addition, the stock market has from time to time experienced significant price and volume fluctuations unrelated to the operating performance of particular companies. These fluctuations may continue to affect the stock prices of technology companies, such as CIENA, in particular. The market price of CIENA common stock may decline.

CIENA MAY NOT BE ABLE TO ACHIEVE THE BENEFITS IT SEEKS FROM THE MERGER.

We cannot be certain that we will achieve the benefits both parties envision from the merger. These benefits, including the accretion to CIENA's earnings which CIENA expects to achieve in the second half of fiscal 2002, depend on the combined company's ability to successfully complete the development of the Cyras K2 product and integrate it into CIENA's product portfolio, achieve commercial acceptance for the Cyras product, achieve our revenue expectations for the Cyras product and the expected synergies, and successfully integrate and retain Cyras personnel. Cyras's product is in the development phase and is not yet ready for commercial manufacturing or deployment, and we cannot assure you that the substantial efforts necessary to complete development of the product and achieve commercial acceptance will be successful. CIENA has only limited experience in significant acquisitions and cannot assure you that this acquisition will be successful.

WE MAY NOT BE ABLE TO SUCCESSFULLY INTEGRATE CYRAS INTO CIENA'S OPERATIONS.

The integration of Cyras into our operations following our merger with Cyras involves a number of risks, including:

- difficulty assimilating Cyras's operations and personnel;

- diversion of management attention;

- potential disruption of ongoing business;

- inability to retain key personnel;

- inability to maintain uniform standards, controls, procedures and policies; and

- impairment of relationships with employees, customers or vendors.

If CIENA fails to overcome these risks or encounter other problems in connection with the merger we may not be able to achieve the benefits we seek from the acquisition and our business may be disrupted.

SIGNIFICANT MERGER-RELATED CHARGES AGAINST EARNINGS WILL REDUCE CIENA'S EARNINGS IN THE QUARTER IN WHICH WE CONSUMMATE THE MERGER AND DURING THE POST-MERGER INTEGRATION PERIOD.

If and when the merger is completed, CIENA will incur a charge for in-process research and development, which we currently estimate will be approximately $16.4 million. The actual charge we incur could be greater than this estimate, which could have a material adverse effect on the combined company's results of operations and financial condition. Also, in the future we will incur non-cash charges in connection with the merger related to goodwill and other intangible amortization and amortization of deferred stock compensation. Other merger-related costs will be capitalized as part of the acquisition's purchase price and amortized in future periods. We could also incur other additional unanticipated merger costs relating to the merger.

THE $150 MILLION IN DEBT THAT CIENA WILL INCUR IN CONNECTION WITH THE MERGER MAY LIMIT CIENA'S FINANCING OPTIONS IN THE FUTURE AND COULD WEAKEN OUR BUSINESS.

CIENA recently issued $690 million of 3.75% convertible notes due February 1, 2008. Cyras has $150 million of 4 1/2% convertible subordinated notes outstanding. CIENA will indirectly assume these Cyras notes at the effective date of the merger. This additional indebtedness could adversely affect CIENA in a number of ways, including:

- limiting CIENA's ability to obtain additional financing in the future;
- limiting CIENA's flexibility to plan for, or react to, changes in its business;
- requiring CIENA to use a substantial portion of its cash flow from operations or utilize a significant portion of cash on hand to repay the debt when due in August 2005, or earlier if CIENA is required to offer to repurchase the notes, as described below, rather than for other purposes, such as working capital or capital expenditures;
- making CIENA more highly leveraged than some of its competitors, which may place it at a competitive disadvantage; and
- making CIENA more vulnerable to a downturn in its business.

Additionally, in the event that the holders of the notes convert their notes into CIENA common stock, CIENA would have to issue a significant number of shares of additional common stock. For example, if the merger closed on February 23, 2000, when the exchange ratio was approximately 0.13, CIENA would have to issue 1,022,411 shares of its common stock if holders of the entire $150 million of convertible notes determined to convert.

In the event that the holders of the notes do not elect to convert them into CIENA common stock before March 31, 2002, and if a complying equity offering has not occurred on or before that date, CIENA will have to make an offer to repurchase the notes at 118.942% of the principal balance of the notes on April 30, 2002. A complying equity offering is defined as a firm commitment underwritten public offering of the common stock of Cyras, in which Cyras raises at least $50 million in gross proceeds.

RISKS RELATED TO AN INVESTMENT IN CIENA

PART OF OUR STRATEGY INVOLVES PURSUING STRATEGIC ACQUISITIONS THAT MAY NOT BE SUCCESSFUL.

As part of our strategy for growth, we will consider acquiring businesses that are intended to accelerate our product and service development processes and add complementary products and services. We may issue equity or incur debt to finance these acquisitions and may incur significant amortization expenses related to goodwill and other intangible assets. Acquisitions involve a number of operational risks,

including risks that the acquired business will not be successfully integrated, may distract management attention and may involve unforeseen costs and liabilities.

OUR STOCK PRICE MAY EXHIBIT VOLATILITY.

Our common stock price has experienced substantial volatility in the past, and is likely to remain volatile in the future. Volatility can arise as a result of the activities of short sellers and risk arbitrageurs, and may have little relationship to our financial results or prospects. Volatility can also result from any divergence between our actual or anticipated financial results and published expectations of analysts, and announcements that we, our competitors, or our customers may make.

Divergence between our actual results and our anticipated results, analyst estimates and public announcements by us, our competitors, or by customers will likely occur from time to time in the future, with resulting stock price volatility, irrespective of our overall year-to-year performance or long-term prospects. As long as we continue to depend on a limited customer base, and particularly when a substantial majority of their purchases consist of newly-introduced products like the MultiWave CoreStream, MultiWave CoreDirector and MultiWave Metro, there is substantial risk that our quarterly results will vary widely.

OUR RESULTS CAN BE UNPREDICTABLE.

Our ability to recognize revenue during a quarter from a customer depends upon our ability to ship product and satisfy other contractual obligations of a customer sale in that quarter. In general, revenue and operating results in any reporting period may fluctuate due to factors including:

- loss of a customer;
- the timing and size of orders from customers;
- changes in customers' requirements, including changes to orders from customers;
- the introduction of new products by us or our competitors;
- changes in the price or availability of components for our products;
- readiness of customer sites for installation;
- satisfaction of contractual customer acceptance criteria and related revenue recognition issues;
- manufacturing and shipment delays and deferrals;
- increased service, warranty or repair costs;
- the timing and amount of employer payroll tax to be paid on employee gains on stock options exercised; and
- changes in general economic conditions as well as those specific to the telecommunications and intelligent optical networking industries.

Our intelligent optical networking products require a relatively large investment, and our target customers are highly demanding and technically sophisticated. There are only a limited number of potential customers in each geographic market, and each customer has unique needs. As a result, the sales cycles for our products are long, often more than a year between our initial contact with the customer and its commitment to purchase.

We budget expense levels on our expectations of long-term future revenue. These budgets reflect our substantial investment in the financial, engineering, manufacturing and logistics support resources we think we may need for large

potential customers, even though we do not know the volume, duration or timing of any purchases from them. In addition, we make a substantial investment in financial, manufacturing and engineering resources for the development of new and enhanced products. As a result, we may continue to experience high inventory levels, operating expenses and general overhead.

We have experienced rapid expansion in all areas of our operations, particularly in the manufacturing of our products. Our future operating results will depend on our ability to continue to expand our manufacturing facilities in a timely manner so that we can satisfy our delivery commitments to our customers. Our failure to expand these facilities in a timely manner and meet our customer delivery commitments would harm our business, financial condition and results of operations.

Our product development efforts will require us to incur ongoing development and operating expenses, and any delay in the contributions from new products, such as the MultiWave CoreDirector product line, and enhancements to our existing optical transport products could harm our business.

CHANGES IN TECHNOLOGY OR THE DELAYS IN THE DEPLOYMENT OF NEW PRODUCTS COULD HURT OUR NEAR TERM PROSPECTS.

The market for optical networking equipment is changing at a rapid pace. The accelerated pace of deregulation and the adoption of new technology in the telecommunications industry likely will intensify the competition for improved optical networking products. Our ability to develop, introduce and manufacture new and enhanced products will depend upon our ability to anticipate changes in technology, industry standards and customer requirements. Our failure to introduce new and enhanced products in a timely manner could harm our competitive position and financial condition. Several of our new products, including the MultiWave CoreDirector and the enhancements to the MultiWave CoreStream products, are based on complex technology which could result in unanticipated delays in the development, manufacture or deployment of these products. In addition, our ability to recognize revenue from these products could be adversely affected by the extensive testing required for these products by our customers. The complexity of technology associated with support equipment for these products could also result in unanticipated delays in their deployment. These delays could harm our competitive and financial condition.

Competition from competitive products, the introduction of new products embodying new technologies, a change in the requirements of our customers, or the emergence of new industry standards could delay or hinder the purchase and deployment of our products and could render our existing products obsolete, unmarketable or uncompetitive from a pricing standpoint. The long certification process for new telecommunications equipment used in the networks of the regional Bell operating companies has in the past resulted in and may continue to result in unanticipated delays which may affect the deployment of our products for market.

WE FACE INTENSE COMPETITION WHICH COULD HURT OUR SALES AND PROFITABILITY.

The market for optical networking equipment is extremely competitive. Competition in the optical networking installation and test services market is based on varying combinations of price, functionality, software functionality, manufacturing capability, installation, services, scalability and the ability of the system solution to meet customers' immediate and future network requirements. A small number of very large companies, including Alcatel, Cisco Systems, Fujitsu Group, Hitachi, Lucent Technologies, NEC Corporation, Nortel Networks, Siemens AG and Telefon AB LM Ericsson, have historically dominated the

telecommunications equipment industry. These companies have substantial financial, marketing, manufacturing and intellectual property resources. In addition, these companies have substantially greater resources to develop or acquire new technologies than we do and often have existing relationships with our potential customers. We sell systems that compete directly with product offerings of these companies and in some cases displace or replace equipment they have traditionally supplied for telecommunications networks. As such, we represent a specific threat to these companies. The continued expansion of our product offerings with the MultiWave CoreDirector product line and enhancements to our MultiWave CoreStream product line likely will increase this perceived threat. We expect continued aggressive tactics from many of these competitors, including:

- price discounting;

- early announcements of competing products and other marketing efforts;

- "one-stop shopping" options;

- customer financing assistance;

- marketing and advertising assistance; and

- intellectual property disputes.

These tactics can be particularly effective in a highly concentrated customer base such as ours. Our customers are under increasing competitive pressure to deliver their services at the lowest possible cost. This pressure may result in pricing for optical networking systems becoming a more important factor in customer decisions, which may favor larger competitors that can spread the effect of price discounts in their optical networking products across a larger array of products and services and across a larger customer base than ours. If we are unable to offset any reductions in the average sales price for our products by a reduction in the cost of our products, our gross profit margins will be adversely affected. Our inability to compete successfully against our competitors and maintain our gross profit margins would harm our business, financial condition and results of operations.

Many of our customers have indicated that they intend to establish a relationship with at least two vendors for optical networking products. With respect to customers for whom we are the only supplier, we do not know when or if these customers will select a second vendor or what impact the selection might have on purchases from us. If a second optical networking supplier is chosen, these customers could reduce their purchases from us, which could in turn have a material adverse effect on us.

New competitors are emerging to compete with our existing products as well as our future products. We expect new competitors to continue to emerge as the optical networking market continues to expand. These companies may achieve commercial availability of their products more quickly due to the narrow and exclusive focus of their efforts. Several of these competitors have raised significantly more cash and they have in some cases offered stock in their companies, positions on technical advisory boards, or have provided significant vendor financing to attract new customers. In particular, a number of companies, including several start-up companies and recently public companies that have raised substantial equity capital, have announced products that compete with our products. Our inability to compete successfully against these companies would harm our business, financial condition and results of operations.

WE MAY NOT BE ABLE TO SUCCESSFULLY COMPLETE DEVELOPMENT AND ACHIEVE COMMERCIAL ACCEPTANCE OF NEW PRODUCTS.

Our MultiWave CoreDirector CI product and some enhancements to the MultiWave CoreDirector and MultiWave CoreStream product lines and LightWorks Toolkit are in the development phase and are not yet ready for commercial manufacturing or deployment. We expect to offer additional releases of the MultiWave CoreDirector product over the life of the product and continue to enhance features of our MultiWave CoreStream product, including the longer reach and higher channel count functionality of our product line. The initial release of MultiWave CoreDirector CI is expected in limited availability for customer trials during the first quarter of calendar 2001. The maturing process from laboratory prototype to customer trials, and subsequently to general availability, involves a number of steps, including:

- completion of product development;
- the qualification and multiple sourcing of critical components, including application-specific integrated circuits;
- validation of manufacturing methods and processes;
- extensive quality assurance and reliability testing, and staffing of testing infrastructure;
- validation of embedded software validation;
- establishment of systems integration and systems test validation requirements; and
- identification and qualification of component suppliers.

Each of these steps in turn presents serious risks of failure, rework or delay, any one of which could decrease the speed and scope of product introduction and marketplace acceptance of the product. Specialized application-specific integrated circuits and intensive software testing and validation, in particular, are key to the timely introduction of enhancements to the MultiWave CoreDirector product line, and schedule delays are common in the final validation phase, as well as in the manufacture of specialized application-specific integrated circuits. In addition, unexpected intellectual property disputes, failure of critical design elements, and a host of other execution risks may delay or even prevent the introduction of these products. If we do not develop and successfully introduce these products in a timely manner, our business, financial condition and results of operations would be harmed.

The markets for our MultiWave CoreDirector product line are relatively new. We have not established commercial acceptance of these products, and we cannot assure you that the substantial sales and marketing efforts necessary to achieve commercial acceptance in traditionally long sales cycles will be successful. If the markets for these products do not develop or the products are not accepted by the market, our business, financial condition and results of operations would suffer.

WE DEPEND ON A LIMITED NUMBER OF SUPPLIERS AND FOR SOME ITEMS WE DO NOT HAVE A SUBSTITUTE SUPPLIER.

We depend on a limited number of suppliers for components of our products, as well as for equipment used to manufacture and test our products. Our products include several high-performance components for which reliable, high volume

suppliers are particularly limited. Furthermore, some key optical and electronic components we use in our optical transport systems are currently available only from sole sources, and in some cases, that sole source is also a competitor. A worldwide shortage of some electrical components has caused an increase in the price of components. Any delay in component availability for any of our products could result in delays in deployment of these products and in our ability to recognize revenues. These delays could harm our customer relationships.

Failures of components can affect customer confidence in our products and could adversely affect our financial performance and the reliability and performance of our products. On occasion, we have experienced delays in receipt of components and have received components that do not perform according to their specifications. Any future difficulty in obtaining sufficient and timely delivery of components could result in delays or reductions in product shipments which, in turn, could harm our business. A recent wave of consolidation among suppliers of these components, such as the recent and pending purchases of E-TEK and SDL, respectively, by JDS Uniphase, could adversely impact the availability of components on which we depend. Delayed deliveries of key components from these sources could adversely affect our business.

Any delays in component availability for any of our products or test equipment could result in delays in deployment of these products and in our ability to recognize revenue from them. These delays could also harm our customer relationships and our results of operations.

WE RELY ON CONTRACT MANUFACTURERS FOR OUR PRODUCTS.

We rely on a small number of contract manufacturers to manufacture our CoreDirector product line and some of the components for our other products. The qualification of these manufacturers is an expensive and time consuming process, and these contract manufacturers build modules for other companies, including for our competitors. In addition, we do not have contracts in place with many of these manufacturers. We may not be able to effectively manage our relationships with our manufacturers and we cannot be certain that they will be able to fill our orders in a timely manner. If we cannot effectively manage these manufacturers or they fail to deliver components in a timely manner, it may have an adverse effect on our business and results of operations.

SOME OF OUR SUPPLIERS ARE ALSO OUR COMPETITORS.

Some of our component suppliers are both primary sources for components and major competitors in the market for system equipment. For example, we buy components from:

- Alcatel;
- Lucent Technologies;
- NEC Corporation;
- Nortel Networks; and
- Siemens AG.

Each of these companies offers optical communications systems and equipment that are competitive with our products. Also, Lucent is the sole source of two components and is one of two suppliers of two others. Recently, Lucent has announced that it intends to spin off a portion of its components business. Our supply of components from Lucent may be adversely effected by this

restructuring. Alcatel and Nortel are suppliers of lasers used in our products, and NEC is a supplier of an important piece of testing equipment. A decline in reliability or other adverse change in these supply relationships could harm our business.

SALES TO EMERGING CARRIERS MAY INCREASE THE UNPREDICTABILITY OF OUR RESULTS.

As we continue to address emerging carriers, timing and volume of purchasing from these carriers can also be more unpredictable due to factors such as their need to build a customer base, acquire rights of way and interconnections necessary to sell network service, and build out new capacity, all while working within their capital budget constraints. Sales to these carriers may increase the unpredictability of our financial results because even these emerging carriers purchase our products in multi-million dollar increments.

Unanticipated changes in customer purchasing plans also create unpredictability in our results. A portion of our anticipated revenue over the next several quarters is comprised of orders of less than $25 million each from several customers, some of which may involve extended payment terms or other financing assistance. Our ability to recognize revenue from financed sales to emerging carriers will depend on the relative financial condition of the specific customer, among other factors. Further, we will need to evaluate the collectibility of receivables from these customers if their financial conditions deteriorate in the future. Purchasing delays and changes in the financial condition or the amount of purchases by any of these customers could have a material adverse effect on us. In the past we have had to make provisions for the accounts receivables from customers that experienced financial difficulty. If additional customers face similar financial difficulties, our receivables from these customers may become uncollectible, and we would have to write off the asset or decrease the value of the asset to the extent the receivable could not be collected. These write-downs or write-offs would adversely affect our financial performance.

OUR ABILITY TO COMPETE COULD BE HARMED IF WE ARE UNABLE TO PROTECT AND ENFORCE OUR INTELLECTUAL PROPERTY RIGHTS OR IF WE INFRINGE ON INTELLECTUAL PROPERTY RIGHTS OF OTHERS.

We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. We also enter into non-disclosure and proprietary rights agreements with our employees and consultants, and license agreements with our corporate partners, and control access to and distribution of our products, documentation and other proprietary information. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our products is difficult and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. If competitors are able to use our technology, our ability to compete effectively could be harmed. We are involved in an intellectual property dispute regarding the use of our technology and may

become involved with additional disputes in the future. Such lawsuits can be costly and may significantly divert time and attention from some members of our personnel.

We have received, and may receive in the future, notices from holders of patents in the optical technology field that raise issues of possible

infringement by our products. Questions of infringement in the optical networking equipment market often involve highly technical and subjective analysis. We cannot assure you that any of these patent holders or others will not in the future initiate legal proceedings against us, or that we will be successful in defending against these actions. We are involved in an intellectual property dispute regarding the possible infringement of our products. In the past, we have been forced to take a license from the owner of the infringed intellectual property, or to redesign or stop selling the product that includes the challenged intellectual property. If we are sued for infringement and are unsuccessful in defending the suit, we could be subject to significant damages and our business and customer relationships could be adversely affected.

PRODUCT PERFORMANCE PROBLEMS COULD LIMIT OUR SALES PROSPECTS.

The production of new optical networking products and systems with high technology content involves occasional problems as the technology and manufacturing methods mature. If significant reliability, quality or network monitoring problems develop, including those due to faulty components, a number of negative effects on our business could result, including:

- costs associated with reworking our manufacturing processes;

- high service and warranty expenses;

- high inventory obsolescence expense;

- high levels of product returns;

- delays in collecting accounts receivable;

- reduced orders from existing customers; and

- declining interest from potential customers.

Although we maintain accruals for product warranties, actual costs could exceed these amounts. From time to time, there will be interruptions or delays in the activation of our products at a customer's site. These interruptions or delays may result from product performance problems or from aspects of the installation and activation activities, some of which are outside our control. If we experience significant interruptions or delays that we can not promptly resolve, confidence in our products could be undermined, which could harm our business.

OUR PROSPECTS DEPEND ON DEMAND WHICH WE CANNOT RELIABLY PREDICT OR CONTROL.

We may not anticipate changes in direction or magnitude of demand for our products. The product offerings of our competitors could adversely affect the demand for our products. In addition, unanticipated reductions in demand for our products could adversely affect us.

Demand for our product depends on our customers' requirements. These requirements may vary significantly from quarter to quarter due to factors such as:

- the type and quantity of optical equipment needed by our customers;

- the timing of the deployment of optical equipment by our customers;

- the rate at which our current customers fund their network build-outs; and

- the equipment configurations and network architectures our customers want.

Customer determinations are subject to abrupt changes in response to their own competitive pressures, capital requirements and financial performance expectations. These changes could harm our business.

Recently we have experienced an increased level of sales activity that could lead to an upsurge in demand that is reflected in the overall increase in demand for optical networking and similar products in the telecommunications industry. Our results may suffer if we are unable to address this demand adequately by successfully scaling up our manufacturing capacity and hiring additional qualified personnel. To date we have largely depended on our own manufacturing and assembly facilities to meet customer expectations, but we cannot be sure that we can satisfy our customers' expectations in all cases by internal capabilities. In that case, we face the challenge of adequately managing customer expectations and finding alternative means of meeting them. If we fail to manage these expectations we could lose customers or receive smaller orders from customers.

OUR SUCCESS LARGELY DEPENDS ON OUR ABILITY TO RETAIN KEY PERSONNEL.

Our success has always depended in large part on our ability to attract and retain highly-skilled technical, managerial, sales and marketing personnel, particularly those skilled and experienced with optical communications equipment. Our key founders and employees, together with the key founders and employees of our acquired companies have received a substantial number of our shares and vested options that can be sold at substantial gains. In many cases, these individuals could become financially independent through these sales before our future products have matured into commercially deliverable products. These circumstances may make it difficult to retain and motivate these key personnel.

As we have grown and matured, competitors' efforts to hire our employees have intensified, particularly among competitive start-up companies and other early stage companies. We have agreements in place with most of our employees that limit their ability to work for a competitor and prohibit them from soliciting our other employees and our customers following termination of their employment. Our employees and our competitors may not respect these agreements. We have in the past been required to enforce, and are currently in the process of enforcing, some of these agreements. We expect in the future to continue to be required to resort to legal actions to enforce these agreements and could incur substantial costs in doing so. We may not be successful in these legal actions, and we may not be able to retain all of our key employees or attract new personnel to add to or replace them. The loss of key personnel would likely harm our business.

PART OF OUR STRATEGY INVOLVES PURSUING STRATEGIC ACQUISITIONS THAT MAY NOT BE SUCCESSFUL.

As part of our strategy for growth, we will consider acquiring businesses that are intended to accelerate our product and service development processes and add complementary products and services. We may issue equity or incur debt to finance these acquisitions and may incur significant amortization expenses related to goodwill and other intangible assets. Acquisitions involve a number of operational risks, including risks that the acquired business will not be successfully integrated, may distract management attention and may involve unforeseen costs and liabilities.

OUR STOCK PRICE MAY EXHIBIT VOLATILITY.

Our common stock price has experienced substantial volatility in the past, and is likely to remain volatile in the future. Volatility can arise as a result of the activities of short sellers and risk arbitrageurs, and may have little relationship to our financial results or prospects. Volatility can also result from any divergence between our actual or anticipated financial results and published expectations of analysts, and announcements that we, our competitors, or our customers may make.

Divergence between our actual results and our anticipated results, analyst estimates and public announcements by us, our competitors, or by customers will likely occur from time to time in the future, with resulting stock price volatility, irrespective of our overall year-to-year performance or long-term prospects. As long as we continue to depend on a limited customer base, and particularly when a substantial majority of their purchases consist of newly-introduced products like the MultiWave CoreStream, MultiWave CoreDirector and MultiWave Metro, there is substantial risk that our quarterly results will vary widely.

FORWARD-LOOKING STATEMENTS

Some of the statements contained, or incorporated by reference, in this prospectus and proxy statement discuss future expectations, contain projections of results of operations or financial condition or state other "forward-looking" information. Those statements are subject to known and unknown risks, uncertainties and other factors that could cause the actual results to differ materially from those contemplated by the statements. The "forward-looking" information is based on various factors and was derived using numerous assumptions. In some cases, you can identify these so-called "forward-looking statements" by words like "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of those words and other comparable words. You should be aware that those statements only reflect our predictions. Actual events or results may differ substantially. Important factors that could cause our actual results to be materially different from the forward-looking statements are disclosed under the heading "Risk Factors" and throughout this prospectus and proxy statement.

THE SPECIAL MEETING OF CYRAS STOCKHOLDERS

GENERAL

Cyras is furnishing this document to holders of Cyras common stock and preferred stock in connection with the solicitation of proxies by the Cyras board of directors for use at the special meeting of Cyras stockholders to be held on March 29, 2001, and at any adjournment or postponement thereof. This document also is being furnished to Cyras stockholders by CIENA as a prospectus of CIENA in connection with the issuance by CIENA of shares of CIENA common stock as contemplated by the merger agreement.

This document was first mailed to stockholders of Cyras on or about March 1, 2001.

DATE, TIME AND PLACE

The special meeting will be held on March 29, 2001 at 8:00 a.m., local time, at the Fremont Marriott, 46100 Landing Parkway, Fremont, California 94538.

PURPOSE OF THE SPECIAL MEETING

At the special meeting, and any adjournment or postponement thereof:

1. The holders of Cyras common stock, voting as a class, and the holders of Cyras preferred stock, voting together as a single class, will be asked to consider and vote on proposals:

- To approve and adopt the merger agreement by and among CIENA, CO Acquisition Corp., a wholly-owned subsidiary of CIENA, and Cyras, and to approve the merger of Cyras with CO Acquisition Corp.; whereby the holders of Cyras stock will receive for each share of Cyras stock held, a fraction of CIENA stock based on the formula described in this prospectus and proxy statement;

- To ratify the appointment of Douglas Carlisle as the stockholder representative under the escrow agreement referred to in the merger agreement;

- To grant the Cyras board of directors discretionary authority to adjourn the special meeting to solicit additional votes for approval and adoption of the merger agreement and for approval of the merger; and

- To transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

2. The holders of preferred stock of Cyras, voting together as a single class, will be asked to cause the automatic conversion of Cyras preferred stock, other than series E preferred stock, held by them into shares of common stock of Cyras immediately prior to the effective time of the merger.

A copy of the merger agreement is attached to this document as Appendix A. Cyras stockholders are encouraged to read the merger agreement in its entirety.

RECORD DATE FOR THE SPECIAL MEETING

The Cyras board of directors has fixed the close of business on January 31, 2001 as the record date for determination of Cyras stockholders entitled to notice of and to vote at the special meeting.

VOTING OF PROXIES AT THE SPECIAL MEETING AND REVOCATION OF PROXIES

Cyras requests that all holders of Cyras common stock on the record date complete, date and sign the accompanying proxy card for common stockholders, and that all holders of Cyras preferred stock on the record date complete, date and sign the accompanying proxy card for preferred stockholders, and promptly

return them in the accompanying envelope or otherwise mail them to Cyras. All properly executed proxy cards that Cyras receives prior to the vote at the

special meeting, and that are not revoked, will be voted in accordance with the instructions indicated on the proxy cards. If no direction is indicated on any proxy card, it will be voted in favor of approval and adoption of the merger agreement and approval of the merger and in favor of ratification of the appointment of Douglas Carlisle as stockholder representative. The Cyras board of directors does not currently intend to bring any other business before the special meeting and, to the knowledge of the Cyras board of directors, no other matters are to be brought before the special meeting. If other business properly comes before the special meeting, the proxy holders will vote in accordance with their own judgment.

A Cyras stockholder may revoke a proxy at any time prior to its use:

- by delivering to the Secretary of Cyras a signed notice of revocation;

- by delivering to the Secretary of Cyras a later-dated, signed proxy card; or

- by attending the special meeting and voting in person.

Attendance at the special meeting does not in itself constitute the revocation of a proxy.

VOTES REQUIRED FOR APPROVAL AND ADOPTION OF THE MERGER AGREEMENT AND APPROVAL OF THE MERGER

In order for the merger to be effective:

- the holders of a majority of the shares of Cyras common stock outstanding as of the record date, voting as a class, and

- the holders of a majority of the shares of Cyras preferred stock outstanding as of the record date, voting together as a single class

must vote to adopt and approve the merger agreement and approve the merger. A vote for the merger is also a vote for the indemnification and escrow arrangements of the merger agreement. See "Terms of the Merger Agreement and Related Transactions -- Indemnification and Escrow Arrangement". As of the close of business on the record date for the special meeting, 62,195,944 shares of Cyras common stock and 137,855,817 shares of Cyras preferred stock were issued and outstanding, warrants to purchase 20,000 shares of Cyras common stock and 3,650,896 shares of Cyras preferred stock were outstanding, and there were approximately 432 stockholders of record. Each share of Cyras common stock and Cyras preferred stock outstanding on the record date is entitled to one vote at the special meeting on each matter to be voted on.

In order for the Cyras preferred stock, excluding the Cyras series E preferred stock, to be automatically converted into shares of Cyras common stock, the holders of two-thirds of the shares of Cyras preferred stock outstanding as of the record date must vote for the automatic conversion of the preferred stock into common stock. As of the close of business on the record date for the special meeting, 137,855,817 shares of Cyras preferred stock, were issued and outstanding, warrants to purchase 3,650,896 shares of Cyras preferred stock were issued and outstanding and there were approximately 199 preferred stockholders of record. Each share of Cyras preferred stock outstanding on the record date is entitled to one vote at the special meeting.

As of the close of business on the record date for the special meeting, Cyras's directors and executive officers (and their respective affiliates) held approximately 36,648,543 shares of Cyras common stock and 55,616,994 shares of

Cyras preferred stock, or approximately 58.9% of the shares of Cyras common stock and 40.3% of the shares of preferred stock entitled to vote at the special meeting, excluding options and warrants to purchase Cyras common stock or preferred stock which were unexercised as of the record date. All of these directors, executive officers and stockholders of Cyras have entered into stockholder agreements, pursuant to which they have agreed to vote their Cyras shares in favor of adoption and approval of the merger agreement and approval of the merger, in favor of any matter that could reasonably be expected to facilitate the merger, against any proposal made in opposition to, or in competition with, the merger, and against any amendment of the Cyras certificate of incorporation or bylaws that is intended

to, or that could reasonably be expected to impede, frustrate, prevent or nullify the merger or change the voting rights of the capital stock. As of the close of business on the record date for the special meeting, no director or executive officer of CIENA owned any shares of Cyras common stock, except for Judith O'Brien, a director of CIENA, who may be deemed to beneficially have an interest in 540,000 shares of Cyras series A preferred stock through an interest in WSGR Investment Company 98B, an investment fund affiliated with her law firm. As of the close of business on the record date for the special meeting, no director or executive officer of Cyras owned any shares of CIENA common stock.

QUORUM AND ABSTENTIONS

A majority of all shares of Cyras common stock and preferred stock, outstanding as of the record date, each as a separate class, represented in person or by proxy, constitutes a quorum for the transaction of business at the special meeting. Cyras has appointed its General Counsel and Secretary to function as the inspector of elections of the special meeting. The inspector of elections will ascertain whether a quorum is present, tabulate votes and determine the voting results on all matters presented to Cyras stockholders at the special meeting. If a quorum is not present, or fewer shares of Cyras common and preferred stock are voted for the adoption and approval of the merger agreement and the approval of the merger than a majority of the shares eligible to vote at the special meeting in person or by proxy, the special meeting may be postponed or adjourned for the purpose of allowing additional time for obtaining additional proxies or votes, and at any subsequent reconvening of the special meeting, all proxies will be voted in the same manner as the proxies would have been voted at the original convening of the special meeting, except for any proxies that have been effectively revoked or withdrawn prior to the subsequent reconvening of the special meeting.

If you submit a proxy that indicates an abstention from voting in all matters, your shares will be counted as present for the purpose of determining the existence of a quorum at the special meeting, but they will not be voted on any matter at the applicable special meeting. Consequently, your abstention will have the same effect as a vote against the proposal to adopt and approve the merger agreement and to approve the merger.

SOLICITATION OF PROXIES AND EXPENSES

Cyras will bear its own expenses in connection with the solicitation of proxies for its special meeting of stockholders, except that CIENA will bear all printing and filing costs and expenses, other than attorneys' and accountants' fees and expenses of Cyras. CIENA will bear all other expenses incurred in connection with the preparation of this document and the preparation and filing of the registration statement of which this document forms a part.

In addition to solicitation by mail, directors, officers and employees of

Cyras may solicit proxies from stockholders by telephone, facsimile, e-mail or in person. No additional compensation will be paid to these individuals for any of these services. Some of these individuals may have interests in the merger that are different from, or in addition to, the interests of Cyras stockholders generally. See "The Merger -- Interests of Cyras Officers and Directors in the Merger." Nominees, fiduciaries and other custodians will be requested to forward soliciting materials to beneficial owners and will be reimbursed for their reasonable expenses incurred in sending proxy materials to beneficial owners.

BOARD RECOMMENDATION

The Cyras board of directors has unanimously determined that the merger agreement is advisable, and that the terms of the merger agreement and the merger are fair to and in the best interests of Cyras and its stockholders. Accordingly, the Cyras board of directors has unanimously approved the merger agreement and unanimously recommends that stockholders vote "FOR" adoption and approval of the merger agreement, approval of the merger and ratification of the appointment of Douglas Carlisle as stockholder representative. In considering this recommendation, Cyras stockholders should be aware that some Cyras directors and officers have interests in the merger that are different from, or in addition to,

those of other Cyras stockholders, and that CIENA has agreed to provide indemnification arrangements to directors and officers of Cyras. See "The Merger -- Interests of Cyras Officers and Directors in the Merger."

THE MATTERS TO BE CONSIDERED AT THE SPECIAL MEETING ARE OF GREAT IMPORTANCE TO THE STOCKHOLDERS OF CYRAS. ACCORDINGLY, CYRAS STOCKHOLDERS ARE URGED TO READ AND CAREFULLY CONSIDER THE INFORMATION PRESENTED IN THIS DOCUMENT AND TO COMPLETE, DATE, SIGN AND PROMPTLY RETURN THE PROXY CARD(S) IN THE ENCLOSED, POSTAGE-PAID ENVELOPE.

CYRAS'S STOCKHOLDERS SHOULD NOT SEND ANY STOCK CERTIFICATES WITH THEIR PROXY CARDS. A TRANSMITTAL FORM WITH INSTRUCTIONS FOR THE SURRENDER OF CYRAS COMMON STOCK CERTIFICATES WILL BE MAILED TO CYRAS STOCKHOLDERS PROMPTLY FOLLOWING COMPLETION OF THE MERGER. FOR MORE INFORMATION REGARDING THE PROCEDURES FOR EXCHANGING CYRAS STOCK CERTIFICATES FOR CIENA STOCK CERTIFICATES, SEE "TERMS OF THE MERGER AGREEMENT AND RELATED TRANSACTIONS -- EXCHANGE OF CERTIFICATES; FRACTIONAL SHARES."

THE MERGER

GENERAL

The boards of directors of CIENA, Cyras and CO Acquisition Corp., a wholly-owned CIENA subsidiary, have each approved the merger agreement, which provides for the merger of Cyras with CIENA's subsidiary, with Cyras being the surviving corporation of the merger. Each share of Cyras common stock and Cyras series A preferred stock, Cyras series B preferred stock, Cyras series C preferred stock, Cyras series D preferred stock and Cyras series E preferred stock outstanding immediately prior to the merger will be converted into the right to receive shares of CIENA common stock. The shares of Cyras common stock and Cyras preferred stock will be converted into a number of shares of CIENA common stock in accordance with formulas specified in the merger agreement, as described under "Terms of the Merger Agreement and Related Transactions--Conversion of Cyras Preferred Stock and Common Stock; Treatment of

Options and Warrants." Fractional shares of CIENA common stock will not be issued in connection with the merger, and Cyras stockholders otherwise entitled to a fractional share will be paid in cash for the fractional share, in the manner described under "Terms of the Merger Agreement and Related Transactions--Exchange of Certificates; Fractional Shares." CIENA and Cyras expect that the merger will be completed immediately following the Cyras stockholder meeting.

BACKGROUND OF THE MERGER

In light of the rapid changes in the telecommunications equipment industry, including industry consolidation and globalization, it has become a regular practice of the CIENA board of directors to review periodically with senior management CIENA's position relative to its peers and new entrants in the industry, as well as the strategic alternatives available to CIENA in order for it to remain competitive and enhance shareholder value. In connection with this ongoing review of its long-term strategic plans, from time to time CIENA has had contact with various parties to explore on a preliminary basis several of these strategic alternatives.

At the August 30, 2000 National Fiber Optics Engineering Conference held in Denver, Colorado, Emil Savov, CIENA's Senior Director of Corporate Development, visited the Cyras exhibition booth, where he had a brief conversation with Alnoor Shivji, at the time President and Chief Operating Officer, and presently President and Chief Executive Officer of Cyras. Topics of discussion included Cyras's product functionality, competitive positioning, stage of product readiness, plans for an initial public offering, and latest financing transactions.

In mid-September 2000, Mr. Savov contacted Mr. Shivji and organized a visit to Cyras at its headquarters in Fremont, California, which took place on September 26, 2000. Prior to the meeting, CIENA and Cyras signed a mutual non-disclosure agreement. CIENA's team consisted of Larry Huang, CIENA's Senior Vice President Corporate Development, and Mr. Savov. Cyras was represented by Mr. Shivji and Rafat Pirzada, Vice President of Marketing and Business Development. Cyras gave a presentation of its current business status and future product strategy.

At the November 1-2, 2000 Next Generation Networks conference in Washington, D.C., Messrs. Shivji and Savov discussed arranging a meeting for the following day. On November 3, 2000, a team led by Steve Chaddick, CIENA's Senior Vice President, Systems and Technologies, and Elizabeth Perry, CIENA's Senior Vice President Core Switching and Network Management Systems, visited Cyras's offices in Fremont, California to engage in in-depth technical discussions about Cyras's product and engineering capabilities.

On November 6, 2000, Dr. Patrick Nettles, CIENA's Chairman of the Board and Chief Executive Officer called Mr. Shivji to discuss the possibility of a business combination.

During November 2000, prior to the execution of the letter of intent with CIENA, Credit Suisse First Boston Corporation, financial advisors to Cyras, in conjunction with Cyras's management, reviewed potential business strategies for Cyras, including potential business combination partners, and at Cyras's request contacted Company A, a large Nasdaq-listed telecommunications equipment vendor. These events were reviewed with the board of directors of Cyras by the management of Cyras.

On November 9, 2000 and November 13, 2000 a CIENA due diligence team

conducted a series of meetings with Cyras representatives in Fremont, California. CIENA representatives at one or more of those meetings included Joseph Chinnici, Senior Vice President, Finance and Chief Financial Officer, Mr. Huang, Michael McCarthy III, CIENA's Senior Vice President and General Counsel, Lynn Moore, CIENA's Vice President of Compensation & Acquisition Strategy and Mr. Savov. Investment banking advisors from Morgan Stanley, on behalf of CIENA, were also present. Cyras representatives, at one or more of those meetings, included Messrs. Shivji and Pirzada, Sunil Tomar, Vice President of Engineering, Shekhar Mandal, Chief Financial Officer, Armando Castro, General Counsel and Dan Grassetti, Vice President of Operations, and Credit Suisse First Boston.

On November 15, Mr. Shivji met with Dr. Nettles in Dallas, Texas to discuss the potential terms for a business combination.

On November 20, CIENA sent Cyras a proposed letter of intent outlining terms for a possible business combination.

On November 27 and 28, Messrs. Huang and McCarthy and representatives of Morgan Stanley met with Messrs. Shivji, Mandal, Pirzada and Castro and representatives from Credit Suisse First Boston to finalize the letter of intent. The letter of intent was executed by both parties on November 28, 2000 and contained mutual non-disclosure provisions and granted CIENA exclusivity until December 22 to enter into a definitive merger agreement with Cyras. The exclusivity provision provided that, during the 24 day period that the provision was in effect, neither Cyras nor its advisors or representatives could initiate, solicit or negotiate any proposal or offer with respect to a business combination with any other party except CIENA. In addition, during the period the provision was in effect, Cyras was required to notify CIENA of any inquiry or proposal for a business combination, the identity of the party making the inquiry or proposal and the material terms of such inquiry or proposal. CIENA had indicated that a period of exclusivity was a condition to their willingness to proceed with final negotiations, and the Cyras board took this into account in approving the letter of intent. In all other respects, the letter of intent was non-binding by its terms. The letter of intent also contemplated that the purchase price would contain a fixed component that would be paid at closing and a contingent component that would be paid approximately one year after closing if Cyras met certain revenue performance targets. During the course of negotiation of the letter of intent, Mr. Shivji updated Cyras's board of directors regarding the progress of the negotiations and consulted with them with respect to open issues. On November 29, Dr. Nettles and Mr. McCarthy updated CIENA's board of directors regarding the progress of the discussions and due diligence with Cyras and the terms of the letter of intent.

On November 30 and December 1, the parties and their financial and legal advisors held due diligence meetings at Cyras's facility in Fremont and at the offices of Brobeck, Phleger & Harrison in Palo Alto.

On December 1, Cyras received an indication of interest from another company, Company A, regarding a possible business combination.

On December 2, the board of directors of Cyras met to discuss the status of the transaction and the indication of interest from Company A. Company A provided a preliminary indication of interest in pursuing a transaction with Cyras involving a stock-for-stock transaction (structured as a pooling of interests) with a value similar to CIENA's original offer. The proposal requested that Cyras provide exclusivity to Company A for an unstated period of time. Cyras did not respond to Company A's indication of interest due to its obligations under the exclusivity provision of the CIENA letter of intent. The board directed Mr. Shivji to notify CIENA of this event, consistent with the

terms of the letter of intent, and also directed Cyras's officers to continue to proceed with the business combination with CIENA as contemplated by the letter of intent. The Cyras board viewed the indication of interest of Company A to be less attractive than the CIENA offer because it believed that the underlying business prospects of CIENA were stronger than those of Company A. Further, Cyras believed that the Cyras K2 product provided a better strategic fit with the CIENA products. In deciding to proceed with the business combination with CIENA, the Cyras board considered whether the indication of interest from Company A was sufficiently attractive to warrant suspending discussions with CIENA until the expiration of the letter

of intent. The board also considered, among other things, whether it was likely that, following the expiration of the exclusivity period, Cyras would actually receive a formal offer from Company A that was comparable to the CIENA offer, the process that would be involved in reaching an agreement with and consummating a business combination with Company A, and the timing of any transaction with Company A, given that Company A would require time to conduct due diligence and negotiate a definitive agreement.

On December 4, CIENA directed its legal representatives, Hogan & Hartson L.L.P., to send to Cyras a first draft of the definitive merger agreement. On December 8, CIENA directed Hogan & Hartson to send to Cyras a first draft of some of the ancillary documents.

On December 6, the CIENA due diligence team made an informal presentation regarding the proposed transaction to the CIENA board of directors.

On December 12, Cyras caused Brobeck, Phleger & Harrison LLP, its outside legal counsel, to send to CIENA Cyras's comments on the draft of the merger agreement and ancillary agreements provided by CIENA.

Between December 14 and December 16, 2000, a team from Cyras was in Baltimore for due diligence on CIENA and negotiations regarding the definitive merger agreement and ancillary agreements. The Cyras team consisted of Messrs. Shivji, Mandal, Pirzada, Castro, representatives from Brobeck, Phleger & Harrison and representatives from Credit Suisse First Boston.

On December 15, the CIENA Board of Directors met to discuss the proposed transaction with Cyras.

On December 17, the board of directors of Cyras held a meeting to discuss the status of the transaction and an unsolicited oral indication of interest received earlier that day from a large New York Stock Exchange listed telecommunications equipment vendor, Company B, regarding a possible business combination with Cyras. Company B's oral indication of interest was subject to a number of different interpretations which would result in widely divergent valuations although the Cyras board of directors interpreted this indication of interest as potentially more attractive from a financial point of view than the CIENA proposal. After some discussion, the Cyras board of directors determined that, due to the exclusivity provision in the letter of intent with CIENA, it could not solicit a clarification of the Company B indication of interest but that it could not proceed with the then existing CIENA offer in light of the indication of interest from Company B that the Cyras board viewed as potentially more attractive from a financial point of view. The Cyras board instructed Mr. Shivji and Credit Suisse First Boston to communicate its decision to CIENA. That same afternoon, Mr. Shivji and Credit Suisse First Boston, on behalf of the Cyras board, informed CIENA and its financial advisor about receiving Company

B's unsolicited oral indication of interest in accordance with the terms of the letter of intent and the Cyras board's decision.

On the night of December 17, Mr. Nettles called Mr. Shivji to offer to revise the consideration being offered by CIENA to that reflected in this prospectus and proxy statement. The initial CIENA offer contemplated an all-stock offer involving approximately 2.5 million fewer CIENA shares than the current proposal, and provided that a significant portion of the consideration would be payable only if Cyras reached specified revenue performance based targets. During the course of the night of December 17 and the morning of December 18, members of the Cyras board of directors discussed informally the revised CIENA offer.

On December 18, the Cyras board of directors convened a meeting at 11 a.m., Pacific time, and discussed again the options available to Cyras, including the revised CIENA offer and the unsolicited indications of interest from Company A and Company B. The Cyras board considered the relative prices, including the timing of payment of the purchase price, indicated in the other indications of interest, including the fact that the revised CIENA offer did not contemplate any deferred, contingent performance-based payment, the trading range of the companies' shares on the stock exchanges on which they traded, the strategic fit of Cyras's products with the product offerings of CIENA versus those of other companies, the corporate culture within which Cyras would fit best, and the timing and likelihood of receipt of acceptable alternative proposals. The board noted that the potential alternate indications of

interest were subject to conduct of due diligence and the drafting and negotiation of definitive agreements, and weighed this in light of the greater certainty associated with the nearly completed process with CIENA. The Cyras board noted that it was uncertain that formal offers would actually materialize or that any such offers would be more favorable to Cyras stockholders, or that any proposed combination would actually be completed. This uncertainty was further weighed against the possibility that CIENA may be unwilling to proceed at all if Cyras allowed the letter of intent to expire in order to engage in discussions with Company A and Company B. Brobeck, Phleger & Harrison advised the Cyras board regarding its fiduciary duties and Credit Suisse First Boston reviewed with the board of directors the financial aspects of the CIENA offer. Cyras viewed the revised CIENA offer as more attractive than the unsolicited indication of interest from Company B because it viewed the revised CIENA offer and the indication of interest to be financially similar and it believed Cyras's K2 product provided a better strategic fit with the CIENA products. The Cyras board also continued to believe that the CIENA offer was more attractive than the Company A indication of interest for the reasons described above. The Cyras board also took note that the non-solicitation provisions of the proposed definitive agreement with CIENA would not prevent the Cyras board from considering and responding to future indications of interest from Company A, Company B or any other company if the Cyras board makes a finding that it is likely that the indication of interest would lead to a superior proposal and the board determines that it is required to consider the indication of interest in the exercise of its fiduciary duties. However, Cyras would be able to complete a transaction with another party only after the payment of an $80 million termination fee and provided that CIENA's option to purchase Cyras shares would not prevent a transaction from being approved. After discussion, the Cyras board formally decided to proceed with the revised CIENA offer, subject to the review of the definitive agreements.

On December 18, the CIENA board of directors held a meeting at which it

approved the final terms of the merger, and the board of directors of CO Acquisition Corp. approved the transaction by unanimous written consent, as did the sole stockholder of CO Acquisition Corp.

During the course of the day on December 18, representatives of Cyras and CIENA negotiated and finalized the merger agreement and ancillary agreements. On the night of December 18, the Cyras board of directors met again, and Brobeck, Phleger & Harrison advised the board regarding the current status of the terms of the transaction and outstanding issues, including the terms of the merger agreement permitting the Cyras board, under certain circumstances, to pursue alternate proposals, and the ability of the stockholders, under certain circumstances, to approve those proposals. The Cyras board of directors approved the merger agreement. The merger agreement and related documents (including the option agreements executed by Cyras officers, directors and their affiliates) were executed early in the morning of December 19.

On December 19, 2000, CIENA and Cyras issued a joint press release announcing the transaction.

CIENA'S REASONS FOR THE MERGER

IN THE CONTEXT OF PRODUCT STRATEGY

CIENA has experienced very rapid growth during its four year operating history. CIENA's growth was driven by the fact that CIENA was first to market with high capacity, open architecture DWDM systems at a time when telecommunications traffic was just starting to experience substantial and accelerating demand for capacity over the long distance backbone of fiberoptic networks. The long distance backbone appeared to be the first and most significant chokepoint in the networks that resulted from the surging demand for capacity, which was primarily the result of increasing data/Internet traffic. CIENA, along with many other industry observers, believed that the chokepoints of fiberoptic networks would logically next be experienced farther out toward the edges of the network, in local exchange markets, access markets, and, ultimately, through "the last mile" to the end user.

Apart from efforts to enhance and refine its long distance DWDM product line, CIENA primarily focused its product development efforts through fiscal 1998 on adapting its DWDM technology beyond the long distance transport market. CIENA has recognized that providing substantial amounts of bandwidth over various transport distances represented only a partial solution to customer needs. The larger need,

unaddressed by DWDM transport systems alone, is to manage that bandwidth efficiently within the network, and ultimately deliver it cost-effectively throughout the network and to end users.

In March 1999, through the acquisition of Lightera Networks, Inc., CIENA added the MultiWave CoreDirector(R) to its product set. MultiWave CoreDirector is a switching system designed to manage and direct bandwidth at the core of service provider networks. The MultiWave CoreDirector family of products are next-generation switching systems combining the functionality of multiple previous generation systems into a single, compact system. CIENA believes its MultiWave CoreDirector products enables its customers to grow their networks more cost efficiently because they enable them to purchase less equipment thereby lowering capital costs. In addition, CoreDirector's software intelligence is designed to enable service providers to provision services and manage network traffic more efficiently than possible with previous generation systems, thereby lowering carrier's operational costs.

The MultiWave CoreDirector's feature set and functionality was designed to handle the high-bandwidth traffic at the core of a service provider's network. As bandwidth in the core of the network grows, CIENA believes service providers face a growing need for the bandwidth management features like those offered by CoreDirector, in applications toward the edge of the network, Cyras's K2 product, was designed to address bandwidth management needs outside of the core network, where lower speed interfaces and aggregation features are required. Like CoreDirector, Cyras's K2 product combines the functionality of multiple previous generation systems into a single compact system, thereby lowering service providers' capital and operating costs. CIENA believes that the acquisition of Cyras will enable it to address carriers' bandwidth management and traffic aggregation requirements at the edge of the network more cost-effectively than current solutions.

IN THE CONTEXT OF CORPORATE HISTORY AND STRATEGY

During the last year, senior management of CIENA met to address CIENA's strategic direction and alternatives and examined in detail industry trends, customer feedback and data, and selected competitor activities. Some of the important conclusions they have reached include:

- Cost-effective solutions for transporting and managing the bandwidth in customer networks are increasingly critical, particularly as data traffic begins to dominate voice traffic;

- Solutions will not necessarily be dependent on the existing telecommunications infrastructure that was built and optimized for voice traffic;

- Depending on the customer, both "evolutionary" and "revolutionary" approaches would be taken to meet the network bandwidth requirements--for example, among traditional industry participants, movement toward innovative data services would likely be more evolutionary, building on the existing "CLASS V" infrastructure that is the foundation for the existing voice network, while new, emerging carriers, such as competitive local exchange carriers, will quickly build innovative, revolutionary new data networks, which have cost-efficiencies and flexibility that will serve as a catalyst to more traditional players to move their networks toward a more data-centric model; and

- CIENA's optical networking expertise and market position should have sustained value under either evolutionary or revolutionary scenarios, and could shape the industry, but should be leveraged into additional product lines at the edge of the network.

In the face of these conclusions, and the trend of the intensely competitive telecommunications equipment provider industry toward rapid consolidation, CIENA's senior management have discussed a number of potential business combinations that could enable CIENA to position itself better to compete in such an environment.

CIENA investigated a number of other target companies in August and September of 2000, focusing on smaller companies with engineering teams and/or products in various stages of development, that would complement and thereby strengthen its engineering resources and existing product line.

ADDITIONAL REASONS FOR THE MERGER

The strategic fit with Cyras represents the principal rationale for the acquisition. However, the following factors, each of which CIENA took into account in evaluating the proposed merger, also support this rationale and enhance the likelihood of achieving the full potential of the combination:

- CUSTOMER INTEREST. Due diligence indicated that prospective customers of Cyras, who are also customers or target customers of CIENA, are likely to be very interested in the products of Cyras. Further, CIENA's sales and marketing efforts have indicated significant potential to acquire customers interested in the more comprehensive "intelligent optical networking" solution that would be made possible by the combination.

- ENTREPRENEURIAL VISION. CIENA and Cyras share a common heritage as entrepreneurial startups. As such, the personnel at these companies appear to share a common appreciation for decisive action, minimal bureaucracy and red tape, and a willingness to take on difficult problems from a fresh perspective. CIENA believes that this could result in fewer integration challenges than would be expected for organizations with dissimilar cultural values.

- WORLD CLASS ENGINEERING TEAMS. Due diligence efforts convinced CIENA's management team that the engineering team at Cyras was world class in quality, and would add significantly to the resources of CIENA and its ability to continue to innovate and rapidly bring new products to market.

In reaching its decision to approve the acquisition of Cyras, the CIENA board also considered, in addition to other matters, the following factors that may be relevant to Cyras stockholders:

- The effect on CIENA stockholder value of the pending Cyras acquisition, in light of the financial condition and prospects of CIENA and the current economic and industry environment. In particular, the CIENA board discussed the near-term significant earnings dilution represented by the price being paid for the development stage company, and contrasted that dilution with the substantial expansion of the addressable markets enabled by the acquisition.

- The execution risks facing Cyras in bringing new products to market in an increasingly competitive industry, and the possibility that if the integration of the businesses and management teams of CIENA and Cyras did not proceed as planned, the desired synergies would not be achieved, and the execution risk would not be overcome.

- The impact of the merger on CIENA's employees, and on the employees of Cyras. CIENA's board discussed the risks of retaining the key technical, marketing and management personnel of Cyras in view of the price being paid for the company, the potential acceleration of stock vesting for some members of Cyras management, and the liquidity potentially available to the two companies' employees, and contrasted those risks with the efforts planned for integrating the companies.

- The business risks associated with increased competition in the telecommunications equipment supply industry, and the likelihood of vigorous competitive response to the merger.

- The terms and conditions of the merger agreement including the limited conditions to closing.

RECOMMENDATION OF THE CYRAS BOARD AND REASONS FOR THE MERGER

The Cyras board of directors believes that increasing competition and industry consolidation make it increasingly important for Cyras to grow and gain

critical mass in order to compete with larger companies with substantially greater resources and broader, integrated product offerings. Cyras's management has considered a number of alternatives for enhancing its competitive position, including growing through the acquisition of smaller companies that could extend Cyras's product offerings and enhance the distribution of Cyras's products and services, and merging with a larger company. After preliminary discussion with CIENA about a potential business combination, Cyras management and its financial advisor reviewed potential business strategies for Cyras, including potential business combination partners, and at Cyras's request, contacted Company A. In the industry environment referred to above, the Cyras board of directors

identified several potential benefits for the Cyras stockholders, employees and customers that it believes would result from the merger. These potential benefits include:

- providing Cyras stockholders with shares of CIENA common stock which are listed on the Nasdaq National Market in a tax-free exchange transaction;

- providing the Cyras stockholders with a purchase price that would not include any contingent performance based portion;

- the ability of the combined company to introduce and sell Cyras products to CIENA's customers and other customers that desire to purchase products from a larger company that offers a more complete product portfolio;

- the ability of the combined company to offer complementary product lines, which presents the opportunity to increase the breadth of products offered and to be a single source provider of a range of complementary products;

- the ability of the two companies to combine their technological resources to develop new products with increased functionality and bring them to market faster;

- the availability to the combined company of greater resources for product marketing and distribution; and

- the combined company's opportunity to participate in the continuing growth of optical networking sector.

In the course of its deliberations regarding the merger, the Cyras board reviewed with Cyras's management and outside advisors a number of factors relevant to the merger, including the strategic overview and prospects for Cyras and interests of some Cyras officers and directors in the merger that differ from those of Cyras stockholders generally. The Cyras board also considered the following potentially positive factors, among others, in connection with its review and analysis of the merger. The Cyras board of directors' conclusions with respect to each of these factors supported its determination that the merger is fair to, and in the best interests of, Cyras's stockholders:

- historical information concerning CIENA's and Cyras's respective businesses, financial performance and condition, operations, technology, management and competitive position;

- current stock market conditions and historical market prices, volatility and trading information with respect to CIENA common stock, which supported a favorable view of CIENA's stock market presence and positive reputation with investors;

- the purchase price offered by CIENA and that no portion of the purchase price was payable contingent upon Cyras reaching any specified revenue performance-based targets;

- the belief that the terms of the merger agreement, including the parties' representations, warranties and covenants, and the conditions to the parties' respective obligations, are reasonable;

- the available alternatives and the history of contacts with other parties, the contingent nature of and the lack of specifics, including with respect to the purchase price, regarding alternate indications of interest, including the uncertainty as to whether Cyras would receive any actual offers if it decided to proceed with any alternate indication of interest and the prospect that a business combination with CIENA may no longer be an available alternative if Cyras delayed or stopped the combination with CIENA, the time required to enter into and complete any alternative proposed transaction, including for the conduct of due diligence and drafting, negotiation and finalization of the related definitive agreements as described under "The Merger -- Background of the Merger";

- the financial analysis and opinion of Credit Suisse First Boston, dated December 18, 2000, to the Cyras board of directors to the effect that, as of that date and based on and subject to the matters described in its opinion, the common stock exchange ratio was fair, from a financial point of view, to the holders of Cyras common stock, other than affiliates of Cyras;

- the impact of the merger on Cyras's customers and employees; and

- reports and views from management, legal advisors and financial advisors as to the results of their due diligence investigation of CIENA.

The Cyras board of directors also considered a number of potentially negative factors in its deliberations concerning the merger. The potentially negative factors considered by the Cyras board of directors included:

- the risk that because the exchange ratio will not be adjusted for changes in the market price of CIENA common stock, the per share value of the consideration to be received by Cyras stockholders might be less than the price per share implied by the exchange ratio immediately before the announcement of the merger due to fluctuations in the market value of CIENA common stock;

- the risk that the merger might not be completed in a timely manner or at all;

- the challenges relating to the integration of the two companies;

- the possibility of management and employee disruption associated with the proposed merger and integrating the operations of the companies, and the risk that, despite the efforts of the combined company, key management, marketing, technical and administrative personnel of Cyras might not continue with the combined company;

- the risks relating to CIENA's business and how they would affect the operations of the combined company.

In addition, the Cyras board reviewed in detail the terms and conditions of the merger agreement and ancillary agreements, including the provisions of the merger agreement and the voting and option agreements relating to third-party merger offers. In this regard, the Cyras board considered, among other things:

- the inability of Cyras under the terms of the letter of intent to pursue indications of interest received from third parties, including Companies A and B, and the limitations on Cyras's ability to pursue indications of interest and merger proposals from third parties under the merger agreement with CIENA;

- the execution of the stockholder agreements by executive officers and directors of Cyras might reduce the likelihood that a third party would make a bid for Cyras;

- the terms of Cyras's "fiduciary out," which allows the Cyras board to furnish information and to engage in discussions and negotiations with a third party making an unsolicited offer that the Cyras board determines is more favorable than the merger, to change its recommendation with respect to the merger in the event of a superior proposal, and to terminate the merger agreement;

- the potential ability of stockholders not subject to the stockholder agreements to vote successfully for an alternate proposal if some holders of Cyras preferred stock elect to convert their shares into shares of Cyras common stock, or some holders of exercisable options to purchase Cyras common stock exercise their options, between the date of the merger agreement and the record date for the special meeting, in numbers sufficient to reduce the percentage of Cyras common stock covered by the stockholder agreements to less than 50%;

- the terms of the termination fee payable by Cyras to CIENA in certain circumstances;

- the strategic and financial benefits of CIENA's proposal, the advanced stage of discussions with CIENA, and the significant risks and uncertainties associated with the indications of interest by Company A and Company B; and

- the other risks described above under "Risk Factors."

Recommendation of Cyras's Board of Directors

This discussion of information and factors considered by the Cyras board of directors is not intended to be exhaustive but includes all material factors considered by the Cyras board of directors. In view of the wide variety of factors considered by the Cyras board of directors, the Cyras board of directors did not find

it practicable to quantify or otherwise assign relative weight to the specific factors considered. In addition, the Cyras board did not reach any specific conclusion on each factor considered, or any aspect of any particular factor, but conducted an overall analysis of these factors. Individual members of the Cyras board may have given different weight to different factors. The Cyras board believed that certain of these risks and negative factors were unlikely to occur or unlikely to have a material impact on the combined companies; that others could be avoided or mitigated; and that, overall, the benefits and positive factors associated with the merger outweighed the risks and negative

factors. Accordingly, after taking into account all of the factors set forth above, the Cyras board of directors unanimously agreed that the merger is fair to, and in the best interests of, Cyras's stockholders and that Cyras should proceed with the merger.

FOR THE REASONS DISCUSSED ABOVE, CYRAS'S BOARD OF DIRECTORS HAS UNANIMOUSLY APPROVED THE MERGER AGREEMENT AND THE MERGER AND HAS UNANIMOUSLY DETERMINED THAT THE MERGER IS FAIR TO, AND IN THE BEST INTERESTS OF, CYRAS AND ITS STOCKHOLDERS AND UNANIMOUSLY RECOMMENDS THAT CYRAS STOCKHOLDERS VOTE FOR ADOPTION OF THE MERGER AGREEMENT AND VOTE FOR APPROVAL OF THE MERGER.

In considering the recommendation of Cyras's board with respect to the merger agreement, Cyras stockholders should be aware that some directors and officers of Cyras have interests in the merger that are different from, or are in addition to, the interests of Cyras's stockholders generally. Please see "The Merger -- Interests of Cyras Officers and Directors in the Merger."

OPINION OF CYRAS'S FINANCIAL ADVISOR

Credit Suisse First Boston has acted as Cyras's financial advisor in connection with the merger. Cyras selected Credit Suisse First Boston based on Credit Suisse First Boston's experience, expertise and reputation. Credit Suisse First Boston is an internationally recognized investment banking firm and is regularly engaged in the valuation of businesses and securities in connection with mergers and acquisitions, leveraged buyouts, negotiated underwritings, competitive biddings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes.

In connection with Credit Suisse First Boston's engagement, Cyras requested that Credit Suisse First Boston evaluate the fairness, from a financial point of view, to the holders of Cyras common stock, other than affiliates of Cyras, of the common stock exchange ratio provided for in the merger. Credit Suisse First Boston delivered to the Cyras board of directors a written opinion, dated December 18, 2000, to the effect that, as of that date and based on and subject to the matters described in its opinion, the common stock exchange ratio provided for in the merger was fair, from a financial point of view, to the holders of Cyras common stock, other than affiliates of Cyras.

The full text of Credit Suisse First Boston's written opinion, dated December 18, 2000, to the Cyras board of directors, which sets forth, among other things, the procedures followed, assumptions made, matters considered and limitations on the review undertaken, is attached as Appendix E and is incorporated into this document by reference. Holders of Cyras common stock are urged to, and should, read this opinion carefully in its entirety. Credit Suisse First Boston's opinion is addressed to the Cyras board of directors and relates only to the fairness of the common stock exchange ratio from a financial point of view, does not address any other aspect of the merger or any related transaction and does not constitute a recommendation to any stockholder as to any matters relating to the merger. The summary of Credit Suisse First Boston's opinion in this document is qualified in its entirety by reference to the full text of the opinion.

In arriving at its opinion, Credit Suisse First Boston reviewed the merger agreement, as well as publicly available business and financial information relating to CIENA and business and financial information relating to Cyras. Credit Suisse First Boston also reviewed other information relating to Cyras and CIENA, including financial forecasts for Cyras and publicly available financial forecasts for CIENA, that Cyras and CIENA provided to or discussed with Credit Suisse First Boston.

Credit Suisse First Boston also met with the managements of Cyras and CIENA to discuss the businesses and prospects of Cyras and CIENA. Credit Suisse First

Boston considered financial and stock market data of CIENA and financial and other data of Cyras, and compared those data with similar data for publicly held companies in businesses similar to those of Cyras and CIENA. Credit Suisse First

41

Boston considered, to the extent publicly available, the financial terms of other business combinations and other transactions which have recently been effected. Credit Suisse First Boston also considered other information, financial studies, analyses and investigations and financial, economic and market criteria which it deemed relevant.

In connection with its review, Credit Suisse First Boston did not assume any responsibility for independent verification of any of the foregoing information and relied on that information being complete and accurate in all material respects. With respect to the financial forecasts for Cyras, Credit Suisse First Boston was advised, and assumed, that the forecasts were reasonably prepared on bases reflecting the best currently available estimates and judgments of Cyras's management as to the future financial performance of Cyras. With respect to the financial forecasts relating to CIENA, Credit Suisse First Boston reviewed and discussed with the management of CIENA publicly available financial forecasts relating to CIENA and was advised by the management of CIENA, and assumed that the forecasts represent reasonable estimates and judgments as to the future financial performance of CIENA. In addition, Credit Suisse First Boston relied on, without independent verification, the assessment of the managements of Cyras and CIENA as to the existing and future technology and products of Cyras and CIENA and the risks associated with the future technology and products, Cyras's and CIENA's ability to integrate the businesses of Cyras and CIENA, and Cyras's and CIENA's ability to retain key employees of Cyras and CIENA. Credit Suisse First Boston also assumed, with the consent of the Cyras board of directors, that the merger would be treated as a tax-free reorganization for federal income tax purposes. In addition, Credit Suisse First Boston was not requested to make, and did not make, an independent evaluation or appraisal of the assets or liabilities, contingent or otherwise, of Cyras or CIENA, nor was Credit Suisse First Boston furnished with any evaluations or appraisals.

Credit Suisse First Boston's opinion is necessarily based upon information available to it, and financial, economic, market and other conditions as they existed and could be evaluated, on the date of the Credit Suisse First Boston opinion. Credit Suisse First Boston did not express any opinion as to what the value of the CIENA common stock actually would be when issued in the merger or the prices at which the CIENA common stock would trade after to the merger. In connection with its engagement, Credit Suisse First Boston was requested prior to the commencement of negotiations with respect to the merger to contact, and Credit Suisse First Boston held discussions with, selected third parties regarding a possible business combination or similar transaction with Cyras, but Credit Suisse First Boston was not requested to, and it did not, solicit generally third party indications of interest in the possible acquisition of all or part of Cyras. During the negotiations with respect to the merger, Cyras received preliminary unsolicited indications of interest in the purchase of the outstanding capital stock of Cyras from two third parties (one orally and one in writing) which the board of directors of Cyras determined not to pursue for various reasons, including, among other things, the enhanced CIENA offer. Credit Suisse First Boston's opinion does not address the relative merits of the merger as compared to other business strategies that might be available to Cyras, including the preliminary unsolicited indications of interest referred to above, nor does it address the underlying business decision of Cyras to proceed with the merger.

Although Credit Suisse First Boston evaluated the common stock exchange ratio from a financial point of view, Credit Suisse First Boston was not

requested to, and did not, recommend the specific consideration payable in the merger, which consideration was determined between Cyras and CIENA. The Cyras board of directors imposed no other limitations on Credit Suisse First Boston with respect to the investigations made or procedures followed in rendering its opinion.

In preparing its opinion to the Cyras board, Credit Suisse First Boston performed a variety of financial and comparative analyses, including those described below. The summary of Credit Suisse First Boston's analyses described below is not a complete description of the analyses underlying Credit Suisse First Boston's opinion. The preparation of a fairness opinion is a complex analytical process involving various determinations as to the most appropriate and relevant methods of financial analyses and the application of those methods to the particular circumstances and, therefore, a fairness opinion is not readily susceptible to summary description. In arriving at its opinion, Credit Suisse First Boston made qualitative judgments as to the significance and relevance of each analysis and factor that it considered. Accordingly, Credit

Suisse First Boston believes that its analyses must be considered as a whole and that selecting portions of its analyses and factors or focusing on information presented in tabular format, without considering all analyses and factors or the narrative description of the analyses, could create a misleading or incomplete view of the processes underlying its analyses and opinion.

In its analyses, Credit Suisse First Boston considered industry performance, regulatory, general business, economic, market and financial conditions and other matters, many of which are beyond the control of Cyras and CIENA. No company, transaction or business used in Credit Suisse First Boston's analyses as a comparison is identical to Cyras and CIENA or the proposed merger, and an evaluation of the results of those analyses is not entirely mathematical. Rather, the analyses involve complex considerations and judgments concerning financial and operating characteristics and other factors that could affect the acquisition, public trading or other values of the companies, business segments or transactions being analyzed. The estimates contained in Credit Suisse First Boston's analyses and the ranges of valuations resulting from any particular analysis are not necessarily indicative of actual values or predictive of future results or values, which may be significantly more or less favorable than those suggested by the analyses. In addition, analyses relating to the value of businesses or securities do not purport to be appraisals or to reflect the prices at which businesses or securities actually may be sold. Accordingly, Credit Suisse First Boston's analyses and estimates are inherently subject to substantial uncertainty.

Credit Suisse First Boston's opinion and financial analyses were only one of many factors considered by the Cyras board in its evaluation of the merger and should not be viewed as determinative of the views of the Cyras board or management with respect to the merger or the common stock exchange ratio.

The following is a summary of the material financial analyses performed by Credit Suisse First Boston in connection with the preparation of its opinion dated December 18, 2000. THE FINANCIAL ANALYSES SUMMARIZED BELOW INCLUDE INFORMATION PRESENTED IN TABULAR FORMAT. IN ORDER TO FULLY UNDERSTAND CREDIT SUISSE FIRST BOSTON'S FINANCIAL ANALYSES, THE TABLES MUST BE READ TOGETHER WITH THE TEXT OF EACH SUMMARY. THE TABLES ALONE DO NOT CONSTITUTE A COMPLETE DESCRIPTION OF THE FINANCIAL ANALYSES. CONSIDERING THE DATA SET FORTH IN THE TABLES BELOW WITHOUT CONSIDERING THE FULL NARRATIVE DESCRIPTION OF THE FINANCIAL ANALYSES, INCLUDING THE METHODOLOGIES AND ASSUMPTIONS UNDERLYING THE ANALYSES, COULD CREATE A MISLEADING OR INCOMPLETE VIEW OF CREDIT SUISSE FIRST BOSTON'S FINANCIAL ANALYSES.

COMPARABLE COMPANIES ANALYSIS. The purpose of this analysis was to compare earnings and revenue multiples of CIENA relative to corresponding multiples of groups of comparable companies. In this analysis, Credit Suisse First Boston compared financial, operating and stock market data of CIENA to corresponding data of the following 30 publicly traded companies in the communications industry:

COMMUNICATIONS COMPANIES	
OPTICAL COMMUNICATIONS EQUIPMENT VENDORS	NEXT GENERATION COMMUNICATIONS EQUIPMENT VENDORS
- CIENA Corporation	- Juniper Networks, Inc.
- Sycamore Networks, Inc.	- Brocade Communications Systems, Inc.
- Redback Networks Inc.	- Extreme Networks, Inc.
- Corvis Corporation	- Sonus Networks, Inc.
- ONI Systems Corp.	- Foundry Networks, Inc.
	- Avici Systems Inc.

43

OPTICAL COMPONENTS VENDORS	BROADLINE COMMUNICATIONS EQUIPMENT VENDORS
- JDS Uniphase Corporation	- Cisco Systems, Inc.
- Corning Incorporated	- Nortel Networks Corporation
- SDL, Inc.	- Ericsson LM Tel. Co. Ad.
- Alcatel Optronics	- Alcatel
- Avanex Corporation	- Lucent Technologies Inc.
- Oplink Communications, Inc.	- Motorola, Inc.
- New Focus, Inc.	- Marconi plc
- Bookham Technology plc	- Tellabs, Inc.
- Optical Communication Products, Inc.	
- Luminent, Inc.	
- Alliance Fiber Optic Products, Inc.	

Credit Suisse First Boston compared stock prices as a multiple of estimated calendar years 2000 and 2001 earnings per share and aggregate values, calculated as fully diluted equity market value, plus debt, less cash, as a multiple of estimated calendar years 2000 and 2001 revenues. All multiples were based on closing stock prices on December 15, 2000, the date one trading day prior to public announcement of the merger. Estimated financial data for CIENA and the selected companies were based on published research analysts' estimates. This analysis indicated the following median implied multiples for the groups of companies, as compared to the implied multiples for CIENA:

	PRICE/EARNINGS		AGGREGATE VALUE/REVENUE	
	ESTIMATED	ESTIMATED	ESTIMATED	ESTIMATED

	2000	2001	2000	2001
CIENA Corporation	251.6x	138.7x	31.5x	18.9x
Optical Communications Equipment Vendors	298.3x	164.0x	52.6x	21.2x
Next Generation Communications Equipment Vendors	286.5x	154.4x	83.5x	23.9x
Optical Components Vendors	104.6x	71.1x	23.7x	12.0x
Broadline Communications Equipment Vendors	44.5x	33.8x	3.4x	2.8x

PRECEDENT TRANSACTIONS ANALYSIS. The purpose of this analysis was to compare the purchase price proposed to be paid in the merger with the purchase prices paid in selected transactions in the optical equipment industry and the value of those transactions as of December 15, 2000. In this analysis, Credit Suisse First Boston analyzed the publicly available financial terms of the following nine publicly announced transactions involving public acquirors and private target companies in the optical equipment industry:

ACQUIROR	TARGET
- Sycamore Networks, Inc.	Sirocco Systems, Inc.
- Lucent Technologies Inc.	Chromatis Networks ,Inc.
- Nortel Networks Corporation	Xros, Inc.
- Nortel Networks Corporation	Qtera Corporation
- Redback Networks Inc.	Siara Systems, Inc.
- Cisco Systems, Inc.	Cerent Corporation
- CIENA Corporation	Lightera Networks Incorporated
- CIENA Corporation	Omnia Communications, Inc.
- Nortel Networks Corporation	Cambrian Systems Corporation

Credit Suisse First Boston compared the aggregate values of the selected transactions on the date of announcement with the aggregate values of those transactions as of December 15, 2000. Aggregate values were based upon publicly available information. All selected transactions were stock-for-stock exchanges, except the Nortel Networks Corporation/Cambrian Systems Incorporated transaction, which was an all-cash transaction. This analysis indicated the following, as compared to the aggregate value of the merger

consideration of $2,716 million, based on the closing price of CIENA common stock on December 15, 2000:

		AGGREGATE VALUE ($MM)	
	ANNOUNCEMENT DATE	ANNOUNCEMENT DATE	DECEMBER 15, 2000
Sycamore Networks, Inc./Sirocco Systems, Inc.	06/06/00	$2,882	$1,545
Lucent Technologies Inc./Chromatis Networks, Inc.	05/31/00	$5,031	$1,542
Nortel Networks Corporation/Xros, Inc.	03/14/00	$3,250	$2,093

Nortel Networks Corporation/Qtera Corporation	12/15/99	$3,250	$2,893
Redback Networks Inc./Siara Systems, Inc.	11/29/99	$4,272	$5,196
Cisco Systems, Inc./Cerent Corporation	08/26/99	$7,480	$10,505
CIENA Corporation/Lightera Networks Incorporated	03/15/99	$552	$4,151
CIENA Corporation/Omnia Communications, Inc.	03/15/99	$424	$3,219
Nortel Networks Corporation/Cambrian Systems Incorporated	12/09/98	$300	$300

Credit Suisse First Boston also reviewed aggregate values as a multiple of next 12 months revenue for the calendar years 1998, 1999 and 2000 and as of December 15, 2000 and stock prices as a multiple of next 12 months earnings for the calendar years 1998, 1999 and 2000 and as of December 15, 2000 of the optical communications equipment vendors, as set forth under the heading "Comparable Companies Analysis;" the following selected optical component vendors: JDS Uniphase Corporation, Corning Incorporated, SDL, Inc., Avanex Corporation, New Focus, Inc. and Bookham Technology plc; and the broadline communications equipment vendors, as set forth under the heading "Comparable Companies Analysis," excluding Nortel Networks Corporation. Estimated financial data for the groups of companies were based on published research analysts' estimates. The purpose of this analysis was to review the recent volatility of public market valuations of companies in comparable industries in the context of making private market acquisitions. The results of this analysis are as follows:

	AGGREGATE VALUE AS MULTIPLE OF NEXT 12 MONTHS REVENUE			
	CY 1998	CY 1999	CY 2000	CURRENT
Optical Communications Equipment Vendors	7.2x	33.0x	100.4x	53.8x
Optical Component Vendors	4.4x	11.5x	53.3x	20.9x
Broadline Communications Equipment Vendors	3.7x	5.7x	6.8x	4.6x

	STOCK PRICE AS MULTIPLE OF NEXT 12 MONTHS EARNINGS			
	CY 1998	CY 1999	CY 2000	CURRENT
Optical Communications Equipment Vendors	42.5x	136.0x	217.3x	203.9x
Optical Component Vendors	29.2x	72.1x	161.3x	105.7x
Broadline Communications Equipment Vendors	34.2x	45.5x	56.0x	44.9x

CONTRIBUTION ANALYSIS. Credit Suisse First Boston analyzed the relative contributions of Cyras and CIENA to the net revenue and earnings of the combined company for the calendar year 2001 based on published research analysts' estimates for CIENA and four scenarios for Cyras. Scenario one assumes $75.0 million in revenue and a net income of ($68.9) million for calendar year 2001. Scenario two assumes $125.0 million in revenue and a net income of ($53.6)

million for calendar year 2001. Scenario three assumes $200.0 million in revenue and a net income of ($30.5) million for calendar year 2001.

45

Scenario four assumed $400.0 million in revenue and a net income of $31.0 million for calendar year 2001. This analysis indicated the following:

	IMPLIED CYRAS OWNERSHIP			
	SCENARIO ONE	SCENARIO TWO	SCENARIO THREE	SCENARIO FOUR
Revenue, CY 2001.....	4.5%	7.2%	11.0%	19.8%
Earnings, CY 2001.....	x	x	x	12.0%

"x" indicates negative earnings contribution.

Credit Suisse First Boston noted that, as of December 15, 2000, the pro forma fully diluted ownership of Cyras's stockholders in the combined company implied by the exchange ratio was 8.1%.

POTENTIAL TRADING VALUES ANALYSIS. The purpose of this analysis was to derive a preliminary range of initial public offering equity values for Cyras using a range of selected multiples of estimated calendar year 2002 revenue and a range of revenue estimates based on recent communication systems initial public offerings. In this analysis, Credit Suisse First Boston estimated the present value of Cyras's fully-distributed equity value, assuming an initial public offering in July 2001, under two scenarios. Scenario one assumes $200.0 million in revenue for calendar year 2002. Scenario two assumes $250.0 million in revenue for calendar year 2002. Cyras's fully-distributed equity value was estimated by applying a selected range of revenue multiples based on the publicly traded companies in the optical communications equipment industry, as set forth under the heading "Comparable Companies Analysis," which Credit Suisse First Boston deemed to be relevant, to estimated calendar year 2002 revenues for Cyras. Credit Suisse First Boston then discounted the fully-distributed equity values under scenarios one and two using discount rates ranging from 0% to 150%. Estimated financial data for the selected companies was based on published research analysts' estimates, and estimated financial data for Cyras was based upon Cyras management estimates.

PRO FORMA IMPACT ANALYSIS. Credit Suisse First Boston analyzed the potential pro forma effect of the merger on CIENA's estimated revenue per share and estimated earnings per share for the estimated calendar year 2001, excluding goodwill, based on published research analysts' estimates for CIENA and the four scenarios for Cyras described above under the heading "Contribution Analysis." Based on Cyras's fully diluted pro forma implied ownership of 8.1% of the combined company, as of December 15, 2000, this analysis indicated the following accretion/(dilution) to CIENA's estimated revenue per share and estimated earnings per share:

	CALENDAR YEAR 2001	
	CIENA REVENUE PER SHARE ACCRETION/(DILUTION)	CIENA EARNINGS PER SHARE ACCRETION/(DILUTION)

Scenario One	(3.7)%	(35.8)%
Scenario Two	(0.8)%	(29.6)%
Scenario Three	3.5%	(20.3)%
Scenario Four	14.9%	4.6%

HISTORICAL STOCK PRICE ANALYSIS. Credit Suisse First Boston analyzed the prices at which CIENA common stock traded since CIENA's initial public offering on February 7, 1997 through December 15, 2000. Credit Suisse First Boston noted that CIENA's December 15, 2000 closing price was $100.73, its 2000 year to date average closing price was $77.08 and its average closing price was $23.11 for 1997, $21.31 for 1998 and $16.27 for 1999.

OTHER FACTORS. In the course of preparing its opinion, Credit Suisse First Boston also reviewed and considered other information and data, including:

- the historical stock prices and trading characteristics of CIENA common stock from December 1, 1999 through December 15, 2000;

- selected published research analysts' reports for CIENA, including earnings per share estimates by those analysts for the four quarters of fiscal year 2001 and the fiscal years ended 2001 and 2002;

- reported revenue, net income and EPS for the last five fiscal quarters for CIENA compared to published research analysts' estimates for the respective quarters;

- the recent stock price performance of CIENA compared to the Nasdaq composite index over the period form November 15, 2000 through December 15, 2000; and

- publicly available financial information relating to recent initial public offerings of selected communication systems companies.

MISCELLANEOUS. Cyras has agreed to pay Credit Suisse First Boston for its financial advisory services in connection with the merger customary fees based on the aggregate value of the merger, which is currently estimated to be approximately $27 million. In addition, Cyras has agreed to reimburse Credit Suisse First Boston for out-of-pocket expenses incurred by Credit Suisse First Boston in performing its services, including the fees and expenses of legal counsel and any other advisor retained by Credit Suisse First Boston, and to indemnify Credit Suisse First Boston and related persons against liabilities, including liabilities under the federal securities laws, arising out of its engagement.

Credit Suisse First Boston and its affiliates have in the past provided investment banking services to Cyras unrelated to the proposed merger, for which services Credit Suisse First Boston has received compensation. In the ordinary course of business, Credit Suisse First Boston and its affiliates may actively trade the securities of CIENA and the debt securities of Cyras for their own accounts and for the accounts of customers and, accordingly, may at any time hold a long or short position in those securities.

INTERESTS OF CYRAS OFFICERS AND DIRECTORS IN THE MERGER

In considering the recommendation of the Cyras board of directors with respect to the adoption and approval of the merger, Cyras stockholders should be

aware that some members of the management of Cyras and the Cyras board of directors may have interests in the merger that are different from, or in addition to, the interests of Cyras stockholders generally. The Cyras board of directors was aware of these potential interests and considered the following matters, among others, in approving the merger agreement and the merger.

As of January 31, 2001, directors and executive officers of Cyras and their affiliates collectively beneficially owned an aggregate of approximately 36,648,543 shares of Cyras common stock, excluding unexercised options to purchase Cyras common stock and approximately 55,616,994 shares of Cyras preferred stock. Upon completion of the merger, it is anticipated that the former directors and executive officers of Cyras and their affiliates collectively will beneficially own an aggregate of approximately 11,629,003 shares of CIENA common stock, or 3.6% of the outstanding shares of CIENA common stock (assuming 326,847,662 shares are then outstanding).

The executive officers of Cyras, Alnoor Shivji, Rafat Pirzada, Sunil Tomar, Shekhar Mandal, Daniel Grassetti and Armando Castro, have signed employment agreements with CIENA, effective only upon the completion of the merger, that include compensation and proposed options to purchase shares of CIENA common stock. Under previously existing employment agreements with Cyras, these executive officers were entitled, in some instances, to severance benefits or payments and acceleration of stock or stock option vesting following the merger. Under the CIENA agreements, the executive officers agreed to waive the severance and acceleration benefits held pursuant to their prior employment agreements with Cyras and will receive 12 months of severance pay, continued health coverage and full vesting of the shares of CIENA common stock they receive in the merger upon a termination without cause or a resignation for good reason. As of the record date for the special meeting, Messrs. Shivji, Pirzada, Tomar, Mandal, Grassetti and Castro held 31,928,543 shares of common stock, of which 16,458,051 were subject to repurchase by Cyras. Upon a termination without cause or a resignation for good reason, these individuals will receive 12 months of severance pay.

The executive officers of Cyras, at the effective time of the merger, must enter into non-competition agreements with CIENA under which they will agree not to engage in some activities or make specified investments for a period ending on the later of two years following the completion of the merger or one

year following termination from employment, but no later than three years following the completion of the merger.

Diosdado Banatao, a director of Cyras, holds 4,320,000 shares of Cyras common stock, which vest monthly over the four year period beginning August 15, 1998. Accordingly, as of January 31, 2001, a total of 2,610,000 shares were vested. Pursuant to an agreement executed between Mr. Banatao and Cyras prior to the merger, his remaining unvested shares will vest in full upon the closing of the merger. Assuming the merger had occurred on February 23, 2001, when the CIENA common stock price for the purpose of the exchange ratio was $74.50 and based on that price, the unvested portion of Mr. Banatao's shares which will vest in full and be converted into shares of CIENA common stock upon the closing of the merger would be valued at approximately $15,211,599.

CIENA has agreed to fulfill and honor the indemnification agreements Cyras has previously entered into with its officers and directors and to fulfill and

honor any indemnification provisions of Cyras's charter documents. The merger agreement provides that all rights to indemnification for present and former officers and directors of Cyras will survive the merger and continue in full force and effect for a period of not less than six years from the date of the completion of the merger in the case of certain omissions, and four years from the date of the merger in the case of all other acts or omissions.

The acceleration of vesting and payment of severance benefits could have triggered a parachute payment, taxable under Internal Revenue Code Section 280G. In such event the individual receiving the parachute payment would have incurred a 20% excise tax on the parachute payment attributable to the severance benefits and/or accelerated vesting and CIENA would not have been entitled to any income tax deduction it may have otherwise been eligible for with respect to the parachute payment. However, those adverse tax consequences will be avoided because the benefits described above have, in accordance with the requirements of Internal Revenue Code Section 280G and the applicable regulations thereunder, been approved by Cyras stockholders holding more than 75% of the total voting power of all of Cyras's outstanding voting shares, excluding shares held by Messrs. Shivji, Pirzada, Tomar, Mandal, Grassetti, Castro, and Banatao.

Cyras stockholders should consider whether these interests may have influenced these directors and officers to support or recommend the merger.

ACCOUNTING TREATMENT

The merger is expected to be accounted for using the purchase method of accounting. CIENA will be deemed the acquiror for financial reporting purposes. Under the purchase method of accounting, the purchase price in the merger is allocated among the Cyras assets acquired, including identifiable intangibles, and the Cyras liabilities assumed to the extent of their fair market value, with any excess purchase price being allocated to goodwill.

LISTING ON THE NASDAQ NATIONAL MARKET

CIENA has agreed to cause the shares of CIENA common stock issued in the merger to be approved for listing on the Nasdaq National Market.

GOVERNMENTAL AND REGULATORY APPROVALS

The Hart-Scott-Rodino Antitrust Improvements Act of 1976 and its related rules and regulations prohibit CIENA and Cyras from completing the merger until CIENA and Cyras make a filing with the Antitrust Division of the Department of Justice and the Federal Trade Commission, and the Hart-Scott-Rodino Antitrust Improvements Act waiting period requirements have been satisfied. Even after the waiting period expires or terminates, the Antitrust Division or the Federal Trade Commission may later challenge the merger on antitrust grounds. CIENA and Cyras made the filing with the Department of Justice and the Federal Trade Commission on January 2, 2001, and the waiting period expired on February 2, 2001.

FEDERAL INCOME TAX CONSEQUENCES

The following describes the material federal income tax consequences of the exchange of shares of Cyras capital stock for CIENA common stock pursuant to the merger that are generally applicable to holders of Cyras capital stock. This discussion is based on currently existing provisions of the Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed Treasury regulations thereunder and current administrative rulings and court decisions, all of which are subject to change. Any such change, which may or may not be

retroactive, could alter the tax consequences to Cyras stockholders as described herein.

Cyras stockholders should be aware that this discussion does not address all federal income tax considerations that may be relevant to particular Cyras stockholders in light of their particular circumstances, such as stockholders who are dealers in securities, who are subject to the alternative minimum tax provisions of the Code, who are foreign persons, insurance companies, tax-exempt organizations, financial institutions, or broker-dealers, who hold their shares as part of a hedge, straddle, conversion or other risk-reduction transaction, who do not hold their Cyras capital stock as capital assets, or who acquired their shares in connection with stock option or stock purchase plans or in other compensatory transactions. In addition, the following discussion does not address the tax consequences of the merger under foreign, state or local tax laws, the tax consequences of the assumption by CIENA of the Cyras employee options, the tax consequences of any receipt of rights to acquire CIENA common stock or, other than the merger of the surviving corporation with and into a limited liability company wholly-owned by CIENA and disregarded for federal income tax purposes, the tax consequences of transactions effectuated prior or subsequent to, or concurrently with, the merger, whether or not any such transactions are undertaken in connection with the merger, including without limitation any transaction in which shares of Cyras capital stock are acquired or shares of CIENA common stock are disposed of.

ACCORDINGLY, CYRAS STOCKHOLDERS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO THEM OF THE MERGER, INCLUDING THE APPLICABLE FEDERAL, STATE, LOCAL AND FOREIGN TAX CONSEQUENCES.

In the opinion of Brobeck, Phleger & Harrison LLP, counsel to Cyras, and Hogan & Hartson, L.L.P., counsel to CIENA, the merger, whether viewed separate from or together with the merger of the surviving corporation with and into a limited liability company wholly owned by CIENA, and disregarded for federal income tax purposes, will constitute a reorganization within the meaning of the Code and, subject to the limitations and qualifications referred to herein, the merger will result in the following federal income tax consequences to Cyras stockholders:

- No gain or loss will be recognized by holders of Cyras capital stock solely upon their receipt of CIENA common stock in exchange for Cyras capital stock in the merger.

- The aggregate tax basis of the CIENA common stock received by Cyras stockholders in the merger, including any fractional share interest in CIENA common stock, will be the same as the aggregate tax basis of the Cyras capital stock surrendered in exchange therefor.

- The holding period of the CIENA common stock received by Cyras stockholders in the merger will include the period for which the Cyras capital stock surrendered in exchange therefor was considered to be held, provided that the Cyras capital stock so surrendered is held as a capital asset at the time of the merger.

- Any cash payment received by a holder of Cyras capital stock in lieu of a fractional share of CIENA common stock will be treated as if such fractional share had been issued in the merger and then redeemed by CIENA. A Cyras stockholder receiving such cash will recognize gain or loss, upon such payment, measured by the difference, if any, between the amount of cash received and the basis in such fractional share.

Consummation of the merger is conditioned upon the receipt by Cyras of a confirming opinion from its counsel, Brobeck, Phleger & Harrison LLP, which will be dated the date on which the merger is consummated, that the merger will

constitute a "reorganization" within the meaning of Section 368(a) of the Internal Revenue Code. Consummation of the merger is also conditioned upon the receipt by CIENA

of a confirming opinion from Hogan & Hartson L.L.P., counsel to CIENA, which will be dated the date on which the merger is consummated, that the merger will not result in taxation to CIENA or CO Acquisition Corp. These opinions of counsel, as well as the opinions of counsel set forth in this section, are based on representations as to factual matters made by, among others, Cyras, CO Acquisition Corp. and CIENA. These representations include that any payment of cash to all stockholders exercising appraisal rights will be paid out of an escrow account to be established by Cyras prior to closing with its own funds. These representations, if incorrect, could jeopardize the conclusions reached in the opinions. Neither Cyras nor CIENA is currently aware of any facts or circumstances which would cause any representations made to counsel to be untrue or incorrect in any material respect. The parties have not and will not request a ruling from the Internal Revenue Service as to the tax consequences of the merger.

The opinions of counsel are not binding upon the Internal Revenue Service or the courts, and there is no assurance that the Internal Revenue Service will not successfully assert a contrary position. A successful Internal Revenue Service challenge to the reorganization status of the merger, whether or not the surviving corporation is merged with a limited liability company wholly-owned by CIENA and disregarded for federal income tax purposes, would result in Cyras stockholders recognizing taxable gain or loss with respect to each share of Cyras capital stock surrendered equal to the difference between the stockholder's basis in such share and the fair market value, as of the effective time of the merger, of the CIENA common stock received in exchange therefor. In such event, a stockholder's aggregate basis in the CIENA common stock so received would equal its fair market value, and the stockholder's holding period for such stock would begin the day after the merger. In addition, if immediately following the merger, the surviving corporation in the merger is merged with and into a limited liability company wholly owned by CIENA and disregarded for federal income tax purposes, the two mergers will likely be viewed as a single transaction and treated as an acquisition of all of the assets and liabilities of Cyras by CIENA solely in exchange for CIENA common stock, followed by the liquidation of Cyras. While both counsel to CIENA and Cyras have opined that the merger in that case would nevertheless constitute a reorganization within the meaning of the Code, if there were a successful Internal Revenue Service challenge to the reorganization status of the merger, an additional consequence would be that Cyras would recognize taxable gain or loss on the deemed sale of all of its assets and liabilities to CIENA in exchange for CIENA common stock. In that case, CIENA would ultimately be liable for the Cyras tax liability resulting from the two mergers.

APPRAISAL RIGHTS OF DISSENTING STOCKHOLDERS OF CYRAS

If the merger is consummated, a holder of record of Cyras stock on the date of making a demand for appraisal, as described below, will be entitled to have those shares appraised by the Delaware Court of Chancery under Section 262 of the Delaware corporation statute and to receive payment for the "fair value" of those shares instead of the consideration provided for in the merger agreement. In order to be eligible to receive this payment, however, a Cyras stockholder must (1) continue to hold his or her shares through the time of the merger; (2) strictly comply with the procedures discussed under Section 262; and (3) not vote in favor of the merger. This prospectus and proxy statement is being sent to all holders of record of Cyras stock on the record date for the Cyras special meeting and constitutes notice of the appraisal rights available to those holders under Section 262.

CIENA's obligation to complete the merger is specifically conditioned on appraisal rights not being demanded or exercised by holders of more than 2% of Cyras's outstanding stock.

THE STATUTORY RIGHT OF APPRAISAL GRANTED BY SECTION 262 REQUIRES STRICT COMPLIANCE WITH THE PROCEDURES IN SECTION 262. FAILURE TO FOLLOW ANY OF THESE PROCEDURES MAY RESULT IN A TERMINATION OR WAIVER OF DISSENTERS' RIGHTS UNDER SECTION 262. THE FOLLOWING IS A SUMMARY OF THE PRINCIPAL PROVISIONS OF SECTION 262.

The following summary is not a complete statement of Section 262 of the Delaware corporation statute, and is qualified in its entirety by reference to Section 262 which is incorporated herein by reference, together with any amendments to the laws that may be adopted after the date of this prospectus

and proxy statement. A copy of Section 262 is attached as Appendix B to this prospectus and proxy statement.

A holder of Cyras stock who elects to exercise appraisal rights under Section 262 must deliver a written demand for appraisal of its shares of Cyras prior to the vote on the merger. The written demand must identify the stockholder of record and state the stockholder's intention to demand appraisal of his or her shares. All demands should be delivered to Cyras, Attention: Armando Castro, General Counsel, 47100 Bayside Parkway, Fremont, California 94538, telephone (510) 623-6600.

Only a holder of shares of Cyras stock on the date of making a written demand for appraisal who continuously holds those shares through the time of the merger is entitled to seek appraisal. Demand for appraisal must be executed by or for the holder of record, fully and correctly, as that holder's name appears on the holder's stock certificates representing shares of Cyras stock. If Cyras stock is owned of record in a fiduciary capacity by a trustee, guardian or custodian, the demand should be made in that capacity. If Cyras stock is owned of record by more than one person, as in a joint tenancy or tenancy in common, the demand should be made by or for all owners of record. An authorized agent, including one or more joint owners, may execute the demand for appraisal for a holder of record; that agent, however, must identify the record owner or owners and expressly disclose in the demand that the agent is acting as agent for the record owner or owners of the shares.

A record holder such as a broker who holds shares of Cyras stock as a nominee for beneficial owners, some of whom desire to demand appraisal, must exercise appraisal rights on behalf of those beneficial owners with respect to the shares of Cyras stock, held for those beneficial owners. In that case, the written demand for appraisal should state the number of shares of Cyras stock covered by it. Unless a demand for appraisal specifies a number of shares, the demand will be presumed to cover all shares of Cyras stock held in the name of the record owner.

BENEFICIAL OWNERS WHO ARE NOT RECORD OWNERS AND WHO INTEND TO EXERCISE APPRAISAL RIGHTS SHOULD INSTRUCT THE RECORD OWNER TO COMPLY WITH THE STATUTORY REQUIREMENTS WITH RESPECT TO THE EXERCISE OF APPRAISAL RIGHTS BEFORE THE DATE OF THE CYRAS SPECIAL MEETING.

Within 10 days after the merger, the surviving or resulting corporation is required to send notice of the effectiveness of the merger to each stockholder who prior to the time of the merger complies with the requirements of Section 262.

Within 120 days after the merger, the surviving corporation or any stockholder who has complied with the requirement of Section 262 may file a petition in the Delaware Court of Chancery demanding a determination of the fair value of the shares of Cyras stock held by all stockholders seeking appraisal. A dissenting stockholder must serve a copy of the petition on the surviving corporation. If no petition is filed by either the surviving corporation or any dissenting shareholder within the 120-day period, the rights of all dissenting stockholders to appraisal will cease. Stockholders seeking to exercise appraisal rights should not assume that the surviving corporation will file a petition with respect to the appraisal of the fair value of their shares or that the surviving corporation will initiate any negotiations with respect to the fair value of those shares. The surviving corporation is under no obligation to and has no present intention to take any action in this regard. Accordingly, stockholders who wish to seek appraisal of their shares should initiate all necessary action with respect to the perfection of their appraisal rights within the time periods and in the manner prescribed in Section 262. FAILURE TO FILE THE PETITION ON A TIMELY BASIS WILL CAUSE THE STOCKHOLDER'S RIGHT TO AN APPRAISAL TO CEASE.

Within 120 days after the time of the merger, any stockholder who has complied with subsections (a) and (d) of Section 262 is entitled, upon written request, to receive from the surviving corporation a statement setting forth the total number of shares of Cyras stock not voted in favor of the merger with respect to which demands for appraisal have been received by Cyras and the number of holders of those shares. The statement must be mailed within 10 days after Cyras has received the written request or within 10 days after the time for delivery of demands for appraisal under subsection (d) of Section 262 has expired, whichever is later.

If a petition for an appraisal is filed in a timely manner, at the hearing on the petition, the Delaware Court of Chancery will determine which shareholders are entitled to appraisal rights and will appraise the shares of Cyras stock owned by those stockholders. The court will determine the fair value of those shares, exclusive of any element of value arising from the accomplishment or expectation of the merger, together with a fair rate of interest, to be paid, if any, upon the fair value.

Stockholders who consider seeking appraisal should consider that the fair value of their shares under Section 262 could be more than, the same as, or less than, the value of the consideration provided for in the merger agreement without the exercise of appraisal rights. The Court of Chancery may determine the cost of the appraisal proceeding and assess it against the parties as the Court deems equitable. Upon application of a dissenting stockholder, the Court may order that all or a portion of the expenses incurred by any dissenting stockholder in connection with the appraisal proceeding (including, without limitation, reasonable attorney's fees and the fees and expenses of experts) be charged pro rata against the value of all shares of Cyras stock entitled to appraisal. In the absence of a court determination or assessment, each party bears its own expenses.

Any stockholder who has demanded appraisal in compliance with Section 262 will not, after the merger, be entitled to vote such stock for any purpose or receive payment of dividends or other distributions, if any, on the Cyras stock, except of dividends or distributions, if any, payable to stockholders of record at a date prior to the merger.

A stockholder may withdraw a demand for appraisal and accept the CIENA common stock at any time within 60 days after the merger. If an appraisal

proceeding is properly instituted, it may not be dismissed as to any stockholder without the approval of the Delaware Court of Chancery, and any such approval may be conditioned on the Court of Chancery's deeming the terms to be just. If, after the merger, a holder of Cyras stock who had demanded appraisal for his shares fails to perfect or loses his right to appraisal, those shares will be treated under the merger agreement as if they were converted into CIENA common stock at the time of the merger.

IN VIEW OF THE COMPLEXITY OF THESE PROVISIONS OF THE DELAWARE CORPORATE LAW, ANY CYRAS STOCKHOLDER WHO IS CONSIDERING EXERCISING APPRAISAL RIGHTS SHOULD CONSULT A LEGAL ADVISOR.

CYRAS 4 1/2% CONVERTIBLE SUBORDINATED NOTES DUE AUGUST 15, 2005

CIENA intends to execute a supplemental indenture effective at the closing date of the merger that provides that effective at closing the $150,000,000 aggregate principal amount 4 1/2% convertible subordinated notes of Cyras will be convertible into CIENA common stock at a conversion price calculated as if each note was convertible effective at closing into Cyras common stock at $18.47 per share, and the resulting approximately 54 shares of Cyras common stock per $1,000 principal amount of notes were thereafter convertible into CIENA common stock at the relevant common stock exchange ratio.

TERMS OF THE MERGER AGREEMENT AND RELATED TRANSACTIONS

The following summary of the material terms and provisions of the merger agreement is qualified in its entirety by reference to the merger agreement. The merger agreement is attached as Appendix A to this prospectus and proxy statement and is considered a part of this document. All stockholders are urged to read the merger agreement carefully.

GENERAL

The merger agreement provides that a wholly-owned subsidiary of CIENA, CO Acquisition Corp., will be merged with and into Cyras at the effective time of the merger. CO Acquisition Corp. will then cease to exist and Cyras will survive this merger and continue as a wholly-owned subsidiary of CIENA. At the effective time of the merger, each outstanding share of Cyras preferred stock and common stock held by persons not exercising appraisal rights will be converted into CIENA common stock, all as more fully described below. This section of the prospectus and proxy statement describes aspects of the merger, including the material provisions of the merger agreement.

STRUCTURE OF THE MERGER

Subject to the terms and conditions of the merger agreement and in accordance with the Delaware General Corporation Law, the DGCL, at the effective time of the merger, CIENA's wholly-owned subsidiary, CO Acquisition Corp., a Delaware corporation, will merge with and into Cyras. CO Acquisition Corp. will then cease to exist, and Cyras will continue as CIENA's wholly-owned subsidiary. The certificate of incorporation of Cyras will become the certificate of incorporation of the surviving corporation of the merger. The bylaws of CO Acquisition Corp. will become the bylaws of the surviving corporation of the merger.

To facilitate internal tax planning, immediately after the merger, CIENA intends to merge Cyras with and into a limited liability company wholly owned by CIENA and disregarded for federal income tax purposes, but under the terms of the merger agreement, CIENA can only undertake that action if it will not affect

the qualification of the merger as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code. Entities that are disregarded for federal income tax purposes, such as single member limited liability companies, are not recognized as entities separate from their owners.

MANAGEMENT AFTER THE MERGER

All of the officers and directors of CIENA before the merger will remain the officers and directors of CIENA after the merger. Pursuant to employment agreements with CIENA that become effective at the effective time of the merger, certain officers of Cyras will remain officers of the surviving company. All current directors of Cyras will be replaced with nominees appointed by CIENA at the effective time of the merger.

CONVERSION OF CYRAS PREFERRED STOCK AND COMMON STOCK

At the effective time of the merger, each issued and outstanding share of Cyras preferred stock and common stock, other than shares held in the treasury of Cyras, held by CIENA or held by any direct or indirect wholly owned subsidiary of CIENA or Cyras, will be converted into shares of CIENA common stock in accordance with the formulas described below. Cyras stockholders will also receive cash, without interest, for any fractional shares of CIENA common stock that they would otherwise receive in the merger.

For purposes of the information in this prospectus and proxy statement, we have assumed that the holders of Cyras series A, B, C and D preferred stock will vote in favor of automatic conversion of their shares into Cyras common stock immediately prior to the effectiveness of the merger, but that holders of Cyras series E preferred stock will not elect to convert their shares based on the applicable preferences that would otherwise apply under the Cyras certificate of incorporation. Because the liquidation preference

of the Cyras series E preferred stock is $18.467, the holders of the series E preferred stock will receive more shares of CIENA common stock by electing not to convert their shares into Cyras common stock unless the closing price for CIENA common stock used to determine the per share consideration at closing exceeds approximately $147 per share. By contrast, a holder of Cyras series D preferred stock, which has a liquidation preference of $2.695 per share, will receive more shares of CIENA common stock by electing to convert its shares into Cyras common stock unless the closing price for CIENA common stock used to determine the per share consideration at closing is less than approximately $21.40 per share. The liquidation preferences of the Cyras series A, B and C preferred stock are less than that of the series D preferred stock.

The Cyras certificate of incorporation provides that all shares of outstanding Cyras preferred stock will automatically convert into common stock as a result of the merger if approved by the holders of more than 66 2/3% of the outstanding preferred stock. However, a separate vote of the holders of the series E preferred stock is required to approve the conversion of the series E preferred stock if the proceeds to Cyras stockholders on a per share basis is less than the series E conversion price, which currently is $18.467. Conversion of the Cyras preferred stock into Cyras common stock is not a condition to the closing of the merger. In the unlikely event that the holders of Cyras preferred stock (other than the series E preferred stock) do not vote in favor of conversion of their shares and do not elect to convert their shares prior to the effective time of the merger, the aggregate number of shares of CIENA common stock issued in the merger will not be reduced, but the exchange ratio applicable to the Cyras common stock will be increased, resulting in the Cyras common stock holders receiving proportionately more of the merger consideration.

At the effective time of the merger, the Cyras stockholders will be entitled to receive:

- in the case of each share of Cyras series E preferred stock, a fraction of a share of CIENA common stock equal to:

  (i) the liquidation price of $18.467, divided by

  (ii) the lower of (i) the average closing price of a share of CIENA common stock as reported on the Nasdaq National Market for the twenty most recent days that CIENA common stock has traded ending on the third trading day prior to the date the merger becomes effective or (ii) the closing price of a share of CIENA common stock as reported on the Nasdaq National Market on the last full trading day prior to the date the merger becomes effective.

- in the case of each share of Cyras common stock, a fraction of a share of CIENA common stock equal to the quotient of:

  (A) the sum of:

  - 27,000,000, plus

  - the quotient of (a) the aggregate amount receivable from holders of Cyras options and warrants upon the exercise of all Cyras options and warrants, assuming they were exercised for cash, divided by (b) the lower of (1) the average closing price of a share of CIENA common stock as reported on the Nasdaq National Market for the twenty most recent days that CIENA common stock has traded, ending on the third trading day prior to the date the merger becomes effective, or (2) the closing price of a share of CIENA common stock as reported on the Nasdaq National Market on the last full trading day prior to the date the merger becomes effective, minus

  - the total number of shares of CIENA common stock allocated to the holders of Cyras's preferred stock at the time the merger becomes effective,

54

  divided by

  (B) the total number of shares of Cyras common stock plus the number of shares of Cyras common stock issuable upon exercise of all Cyras stock options and warrants, in each case immediately prior to the effectiveness of the merger, excluding those options and warrants that expire as a result of the merger or by their terms will expire following the effectiveness of the merger without becoming exercisable due to vesting provisions.

If, prior to the effective time of the merger, the outstanding shares of CIENA common stock are changed into or exchanged for a different number of shares or a different class as a result of any stock split, combination, reclassification or dividend, the nature of the consideration to be received by the holders of Cyras capital stock and the exchange ratios will be appropriately and proportionately adjusted.

OPTIONS GRANTED OUTSIDE THE CONVERSION FORMULA

As of the date of the merger agreement, there were 15,361,242 options to

purchase Cyras common stock issued and outstanding. From the date of the merger agreement until the closing of the merger, Cyras may grant additional options up to an amount equal to the product of (a) the number of days between the date of the merger agreement and the closing date and (b) 25,000, but in any event, no more than 3,000,000 stock options to new employees consistent with its current new hire option grant policy, and these options will not be included in the formula to determine the common stock exchange ratio.

PREFERRED STOCK PURCHASE RIGHTS

In addition, each share of CIENA common stock issued in the merger will include a corresponding right to purchase shares of CIENA junior preferred stock, par value $0.01 per share, pursuant to the Rights Agreement dated as of December 29, 1997 between CIENA and BankBoston, N.A. as Rights Agent.

TREATMENT OF OPTIONS AND WARRANTS

CIENA will assume each option or warrant to acquire Cyras common stock or preferred stock granted under Cyras's 1998 Stock Plan or otherwise issued by Cyras and that is outstanding and unexercised immediately prior to the effective time of the merger, and at the effective time of the merger CIENA will replace them with an option or warrant, respectively, to purchase CIENA common stock. In each case, the number of shares of CIENA common stock subject to the new CIENA option or warrant will be equal to the number of shares of Cyras common stock subject to the Cyras stock option or warrant, assuming full vesting, multiplied by the common stock exchange ratio and rounding any fractional share up to the nearest whole share and the exercise price per share of CIENA common stock will be equal to the aggregate exercise price for the shares of Cyras common stock subject to the Cyras stock option or warrant divided by the number of shares of CIENA common stock subject to the new CIENA option or warrant. The duration and other terms of each such CIENA option or warrant, including the vesting schedule, will be the same as the prior Cyras stock option or warrant.

EXCHANGE OF CERTIFICATES; FRACTIONAL SHARES

For the benefit of the holders of issued and outstanding shares of Cyras preferred stock and Cyras common stock, CIENA has agreed to deposit with a bank or trust company designated as exchange agent by CIENA and reasonably acceptable to the stockholders' representative certificates representing the shares of CIENA common stock to be issued pursuant to the merger agreement, less the number of shares of CIENA common stock to be deposited in escrow as described in "Terms of the Merger Agreement and Related Transactions -- Indemnification." In addition, CIENA will deposit with the exchange agent cash in an amount sufficient to permit payment of cash for fractional shares as provided in the merger agreement.

At the earliest practicable date after the effective time of the merger, the exchange agent will mail a letter of transmittal to each holder of Cyras preferred and common stock. The letter of transmittal will contain instructions with respect to the surrender of stock certificates to the exchange agent.

YOU SHOULD NOT RETURN YOUR STOCK CERTIFICATES WITH THE ENCLOSED PROXY NOR SHOULD YOU FORWARD THEM TO THE EXCHANGE AGENT UNLESS AND UNTIL YOU RECEIVE THE LETTER OF TRANSMITTAL, AT WHICH TIME YOU SHOULD FORWARD THEM ONLY IN ACCORDANCE WITH THE INSTRUCTIONS SPECIFIED IN THE LETTER OF TRANSMITTAL.

Until the holders of certificates representing Cyras common stock to be converted into CIENA common stock in the merger surrender them for exchange at or after the effective time of the merger, they will accrue but will not receive

dividends or other distributions declared after the effective time of the merger with respect to CIENA common stock into which their Cyras stock has been converted. When they surrender these certificates, any unpaid dividends or other distributions will be paid, without interest. All stock certificates presented after the effective time of the merger will be canceled and exchanged for a certificate representing the applicable number of shares of CIENA common stock.

CIENA will not issue any fractional shares. Instead, each Cyras stockholder who would otherwise have been entitled to receive a fractional share of CIENA common stock will receive cash, without interest, in an amount rounded to the nearest whole cent, determined by multiplying (1) the per share closing price on the Nasdaq National Market of CIENA common stock on the closing date or, if the CIENA common stock is not trading on the Nasdaq National Market on that date, the first day of trading in CIENA common stock on the Nasdaq National Market thereafter by (2) the fraction of a share of CIENA common stock to which the holder would otherwise be entitled.

Any shares of CIENA common stock and cash that the exchange agent has not distributed six months after the effective time of the merger will be delivered to CIENA upon demand. Certificates representing Cyras preferred or common stock must thereafter be surrendered for exchange to CIENA. Neither CIENA, Cyras, nor the exchange agent will be liable for any shares of CIENA common stock, dividends or distributions with respect thereto, or cash delivered to a public official pursuant to any abandoned property, escheat or similar laws.

If a certificate representing Cyras preferred stock or Cyras common stock is lost, stolen or destroyed, the exchange agent will issue the CIENA common stock in exchange for the certificate only upon the making of an affidavit of loss, theft or destruction by the claimant, and, if required by CIENA, the posting of a bond as indemnity against any claim that may be made against CIENA or the exchange agent with respect to the certificate.

For a description of the CIENA common stock and a description of the differences between the rights of the holders of Cyras common stock and holders of CIENA common stock, see "CIENA Capital Stock and Comparison of Stockholder Rights."

EFFECTIVE TIME

The merger will occur after all of the conditions set forth in Article VI of the merger agreement have been satisfied or waived. On the second business day after the satisfaction or waiver of the conditions in Article VI of the merger agreement, the parties will hold a scheduled closing. On the day the merger occurs, CIENA will file a certificate of merger with the Secretary of State of the State of Delaware. The effective time of the merger will be the date and time of that filing. Cyras and CIENA each anticipate that, if the merger is approved at the special meeting, it will be consummated during the first calendar quarter of 2001.

REPRESENTATIONS AND WARRANTIES

The merger agreement contains various representations of Cyras and CIENA. Cyras has made customary representations and warranties relating to, among other things:

- the corporate organization and existence of Cyras, including that it is duly organized, validly existing and in good standing with the corporate power and authority to own, operate and lease its properties and to carry on its business as currently conducted;

- the certificate of incorporation and bylaws of Cyras;

- the capitalization of Cyras, including the number of shares of capital stock authorized, the number of shares and rights to acquire shares outstanding and the number of shares reserved for issuance;

- the corporate power and authority of Cyras to execute and deliver the merger agreement and related documents and to consummate the transactions contemplated by these documents;

- the compliance of the merger agreement and related documents with Cyras's certificate of incorporation and bylaws, applicable laws, and material agreements of Cyras, including the absence of events of default or acceleration under these agreements;

- the required governmental and third-party consents;

- Cyras's financial statements, including that the information in the financial statements is a fair presentation of the financial condition and results of operations of Cyras and is in compliance with GAAP;

- the absence of material undisclosed liabilities;

- the material contracts to which Cyras is a party;

- the absence of specified changes in Cyras's business since December 31, 1999;

- the absence of material legal proceedings, injunctions and disputes;

- the validity of and absence of defaults under, specified debt instruments, leases and other agreements of Cyras;

- compliance with laws, including laws relating to Cyras's assets, business and employees;

- Cyras's employee benefit plans and related matters, including that the plans have been operated and administered in accordance with applicable law;

- the filing and accuracy of Cyras's tax returns;

- the absence of certain business practices of Cyras;

- insurance;

- the absence of certain potential conflicts of interest with employees, directors, officers and significant stockholders of Cyras;

- the ownership and condition of the assets owned by Cyras;

- complete and correct books and records;

- the intellectual property of Cyras, including the absence of intellectual property infringement or contests;

- the adoption by the Cyras board of a resolution approving the merger agreement and the merger and recommending adoption of the merger agreement and approval of the merger by the stockholders of Cyras;

- the vote required to approve the merger;

- compliance with environmental laws and the absence of environmental liabilities; and

- true and complete copies of all documents referred to in the schedules to the merger agreement.

Cyras's representations and warranties will survive until the end of the first year after the effective time of the merger. After the effective time of the merger, the maximum liability of Cyras's stockholders for any breach of the representations, warranties, covenants or agreements will be limited to 10% of the shares issued in the merger transaction. CIENA and certain other indemnified persons may make a claim for indemnification for breach of any of the foregoing representations and warranties until the end of the first year after the effective time of the merger. See "Terms of the Merger Agreement and Related Transactions -- Indemnification."

The merger agreement also contains customary representations and warranties of CIENA and CO Acquisition Corp., as to, among other things:

- the corporate organization and existence of CIENA and CO Acquisition Corp., including that they are duly organized, validly existing and in good standing with the corporate power and authority to own, operate and lease their properties and to carry on their business as currently conducted;

- the corporate power and authority of CIENA to execute and deliver the merger agreement and related documents and to consummate the transactions contemplated by these documents;

- the certificate of incorporation and bylaws of CIENA and CO Acquisition Corp.;

- the compliance of the merger agreement and related documents with CIENA's certificate of incorporation and bylaws and the certificate of incorporation and bylaws of CO Acquisition Corp., applicable laws, and certain material agreements of CIENA;

- the required governmental and third-party consents;

- CIENA's filings with the SEC;

- the valid issuance of the shares of CIENA common stock to be issued in the merger;

- the capitalization of CIENA;

- the qualification of the merger as a tax-free reorganization under Section 368(a) of the Code; and

- the absence of specified changes in CIENA's business since October 31, 2000.

BUSINESS OF CYRAS PENDING THE MERGER; OTHER AGREEMENTS

Pursuant to the merger agreement, Cyras has agreed to maintain its business in the ordinary course consistent with past practice. From the date of signing of the merger agreement until closing, Cyras will:

- maintain its existence in good standing;

- maintain the general character of its business and properties and conduct its business in the ordinary and usual manner consistent with past practices, except as expressly permitted by the merger agreement;

- maintain business and accounting records consistent with past practices;

- use its best efforts (1) to preserve its business intact, (2) to keep available to Cyras the services of its present officers and employees, and (3) to preserve for Cyras the goodwill of its suppliers, customers and others having business relations with Cyras; and

- afford access to the books, records and properties of Cyras to CIENA.

58

Unless CIENA otherwise approves, Cyras may not:

- amend or otherwise change its certificate of incorporation or bylaws;

- issue or sell any stock or grant any options other than in the ordinary course, including under its option program;

- declare, set aside, make or pay any dividend or other distribution, payable in cash, stock, property or otherwise with respect to any of its capital stock;

- reclassify, combine, split, subdivide or redeem, purchase or otherwise acquire, directly or indirectly, any of its capital stock;

- incur any indebtedness for borrowed money or issue any debt securities or assume, guarantee or endorse, or otherwise become responsible for, the obligations of any person, or make any loans or advances, with some exceptions, or modify, amend or waive the terms of its 4 1/2% convertible subordinated notes due August 15, 2005;

- acquire any corporation, partnership, other business organization or any division of a business or any material amount of assets;

- enter into any contract or agreement other than in the ordinary course of business, consistent with past practices;

- authorize any capital commitment or capital lease in excess of $500,000 or capital expenditures which are, in the aggregate, in excess of $500,000;

- mortgage, pledge or subject to encumbrance any of its assets or properties or agree to do so;

- assume, guarantee or otherwise become responsible for the obligations of any other person or agree to so do;

- enter into or agree to enter into any employment agreement, other than those entered into in the ordinary course of business;

- increase the compensation of its officers or employees, or grant any severance or termination pay to, or enter into any severance agreement with any director, officer or other employee of Cyras, or establish, adopt, enter into or amend specified arrangements for the benefit of any director, officer or employee except for reasonable salary increases in

connection with customary officer and employee performance review process and customary bonuses consistent with past practices;

- change in any respect its accounting policies or procedures;

- make any tax election or settle or compromise any federal, state, local or foreign material income tax liability in excess of $50,000;

- settle or compromise any pending or threatened suit, action or claim;

- pay, discharge or satisfy any claim, liability or obligation, other than the payment, discharge or satisfaction, in the ordinary course of business and consistent with past practices, of liabilities reflected or reserved against in the latest balance sheet included in the last audited financial statement provided to CIENA or subsequently incurred in the ordinary course of business and consistent with past practices, in amounts not in excess of $100,000;

- sell, assign, transfer, license or sublicense, other than in the ordinary course of business and consistent with past practices, pledge or otherwise encumber any of the intellectual property rights; or

- announce an intention, commit or agree to do any of the foregoing.

However, Cyras will be permitted to amend its stock option plan to provide for acceleration of vesting of 25% of the then unvested shares held by a holder of options or restricted stock in the event of a change

in control, excluding the merger, similar to the manner described in CIENA's 1999 Non-Officer Stock Option Plan.

NO SOLICITATION BY CYRAS

Pursuant to the merger agreement, Cyras may not, nor may it authorize or permit any of its affiliates or any officer, director, employee, investment banker, attorney or other adviser or representative of Cyras or any of its affiliates to:

- solicit, initiate, or encourage the submission of, any acquisition proposal;

- enter into any agreement with respect to any acquisition proposal; or

- participate in any discussions or negotiations regarding, or furnish to any person any information for the purpose of facilitating the making of, or take any other action to facilitate any inquiries or the making of any proposal that constitutes, or may reasonably be expected to lead to, any acquisition proposal.

Cyras must promptly notify CIENA of any acquisition proposal and inquiries with respect to any acquisition proposal. Acquisition proposal means any proposal for a merger or other business combination involving Cyras or any proposal or offer to acquire in any manner, directly or indirectly, an equity interest, voting securities, or assets of Cyras totaling at least 5%, or at least 30% for purposes of the termination provisions of the merger agreement described below, of Cyras's equity, voting securities or assets, except in connection with employee stock option grants or warrant exercises.

The merger agreement does not preclude Cyras from, prior to receipt of the

requisite stockholder approval, providing information to, subject to appropriate confidentiality protections, or entering into negotiations with, a person who has delivered an unsolicited written bona fide acquisition proposal, so long as in each case:

- the board of directors of Cyras determines in good faith, after reviewing the advice of its financial advisor and outside legal counsel, that the acquisition proposal, if accepted, is likely to be consummated;

- the board of directors of Cyras determines in good faith, after reviewing the advice of its financial advisor, that the acquisition proposal would, if consummated, result in a transaction that is more favorable to the Cyras stockholders with respect to financial terms and, if applicable, strategic benefit, taking into account the long-term value to stockholders of the CIENA shares being issued and the strategic nature of the merger; and

- the board of directors of Cyras determines in good faith, after receiving advice of its outside legal counsel, that taking such action is required or necessary in the exercise of its fiduciary duties under applicable law.

In addition to these "no solicitation" provisions, the merger agreement provides that Cyras will promptly advise CIENA of any acquisition proposal, including its terms and the identity of the person making the acquisition proposal, and inquiries with respect to any discussion regarding an acquisition proposal.

The merger agreement provides that the Cyras board of directors may not withdraw, amend, modify or qualify in a manner adverse to CIENA its recommendation of the merger to its stockholders, unless:

- Cyras provides CIENA with three business days' prior notice;

- Cyras has otherwise complied in all respects with its obligations under the merger agreement; and

- after receiving the advice of its outside legal counsel, the Cyras board of directors determines in good faith that the merger is not in the best interests of its stockholders and that, therefore, it is required to withdraw or change its recommendation in order to satisfy its fiduciary duties to Cyras's stockholders under applicable law.

ADDITIONAL AGREEMENTS OF CIENA AND CYRAS

Pursuant to the merger agreement, Cyras and CIENA have also agreed to use their reasonable best efforts to take all necessary, proper or appropriate actions to consummate the transactions contemplated by the merger agreement.

In accordance with its certificate of incorporation and bylaws, Cyras will take all action necessary to either:

- convene a meeting of the holders of Cyras stock, to be held as promptly as practicable after the S-4 registration statement is declared effective; or

- solicit written consents from its stockholders, in either case to consider and vote upon the approval of the merger and the automatic conversion of the series A, B, C and D preferred stock.

INDEMNIFICATION AND ESCROW ARRANGEMENT

Under the merger agreement, CIENA and its officers, directors and affiliates are indemnified by the Cyras stockholders, other than those dissenting stockholders exercising rights of appraisal under Section 262 of the DGCL who do not receive CIENA common stock in the merger, against all claims, losses, and liabilities, incurred as a result of:

- any inaccuracy or breach of a representation or warranty of Cyras contained in the merger agreement or a certificate of any officer of Cyras delivered pursuant to the merger agreement; or

- any failure by Cyras to perform or comply with any covenant contained in the merger agreement.

The aggregate amount available to indemnify the indemnified parties may not exceed the amount deposited in the escrow fund, referred to below, and no stockholder is required to indemnify the indemnified parties for an amount that would exceed such stockholder's pro rata share of the CIENA stock deposited in the escrow fund. In addition, there will be no indemnification liability, except as provided in the merger agreement, unless the aggregate amount of losses incurred exceeds $1,000,000 in which event the entire amount of losses will be indemnifiable. The stockholders will have no right of contribution from Cyras with respect to any loss claimed by CIENA after the closing date. Nothing in the merger agreement limits the liability of Cyras for any breach of any representation, warranty or covenant if the merger is not consummated.

ESCROW FUND. The merger agreement provides that 10% of the shares of CIENA common stock to be issued to the Cyras stockholders in the merger will be placed in escrow with an escrow agent as soon as practicable after the merger is completed. The escrow fund will be the sole and exclusive source available to compensate CIENA for the indemnification obligations of each Cyras stockholder under the merger agreement. The merger agreement does not, however, limit any remedies against the parties to the merger agreement in the event of fraud. The deposit with the escrow agent constitutes an escrow fund to be governed by the terms set forth in the escrow agreement. The portion of the escrow amount contributed on behalf of each stockholder must be proportional to the aggregate CIENA common stock to which such holder would otherwise be entitled. Any stockholder may elect to cause the shares beneficially owned by that stockholder to be sold following the closing of the merger and cause the excess proceeds, if any, over the assumed value of the shares at closing to be delivered to him. The form of escrow agreement is attached to this prospectus and proxy statement as Appendix C.

The vote being taken at the upcoming special meeting includes a vote to ratify the appointment of Douglas Carlisle as stockholder representative under the escrow agreement. Mr. Carlisle is a member of the board of directors of Cyras and a general partner of Menlo Ventures VII, L.P., which owns 31,999,998 shares of series B preferred stock of Cyras, 10,982,862 shares of series C preferred stock of Cyras and 396,336 shares of series D preferred stock of Cyras. Menlo Entrepreneurs Fund VII, L.P., an affiliate of Menlo Ventures VII, L.P., owns 1,344,000 shares of series B preferred stock of Cyras, 461,280 shares of series C preferred stock of Cyras and 16,650 shares of series D preferred stock of Cyras.

DIRECTORS' AND OFFICERS' INSURANCE AND INDEMNIFICATION

CIENA has agreed to fulfill and honor in all respects the indemnification agreements Cyras has previously entered into with its officers and directors and

to fulfill and honor any indemnification provisions of Cyras's charter documents. The merger agreement provides that all rights to indemnification for present and former officers and directors of Cyras will survive the merger and continue in full force and effect for a period of not less than six years from the date of the completion of the merger in the case of certain omissions, and four years from the date of the merger in the case of all other acts or omissions.

CONDITIONS PRECEDENT TO EACH PARTY'S OBLIGATION TO EFFECT THE MERGER

The following conditions must be satisfied before the merger can become effective:

- CIENA and Cyras must obtain or make all authorizations, consents, orders, declarations or approvals of, or filings with, or terminations or expirations of waiting periods imposed by any governmental or regulatory authority, domestic or foreign, including expiration of any Hart-Scott-Rodino Act waiting period, which the failure to obtain, make or occur would have the effect of making the merger or any of the transactions contemplated by it illegal or would have a material adverse effect on CIENA or on Cyras, assuming the merger had taken place;

- No temporary restraining order, preliminary or permanent injunction or other order from any court of competent jurisdiction or other governmental or regulatory authority may prohibit or prevent the consummation of the merger or any of the transactions contemplated by the merger agreement;

- No stop order or threat of proceedings shall have been initiated by the SEC to suspend the effectiveness of the S-4 registration statement;

- Holders of Cyras capital stock must approve the merger, as required by Cyras's certificate of incorporation; and

- The CIENA common stock to be issued in the merger must be approved for listing on the Nasdaq National Market.

CONDITIONS PRECEDENT TO OBLIGATIONS OF CIENA

CIENA's obligations to effect the merger are subject to the fulfillment or satisfaction, prior to or on the closing date, of each of the following conditions:

- Cyras must have performed and complied in all material respects with all agreements and conditions to be performed prior to or on the closing date and each of Cyras's representations and warranties contained in the merger agreement must be true and correct in all material respects;

- There shall have been no event, change or effect that has or is reasonably likely to have a material adverse effect on the business, condition or results of operations of Cyras;

- Holders of no more than 2.0% of the issued and outstanding Cyras capital stock immediately prior to the closing date shall have demanded or exercised appraisal rights under Section 262 of the DGCL;

- Cyras must have received specified third party consents or waivers, in form and substance satisfactory to CIENA, from the other parties to specified contracts, leases or agreements to which Cyras is a party;

- Specified individuals shall have entered into non-competition agreements with CIENA, as described above;

- CIENA must have received the opinion of Hogan & Hartson L.L.P., counsel to CIENA, dated the closing date, to the effect that the merger will not result in taxation to CIENA or CO Acquisition Corp. under the Internal Revenue Code; and

- The agreement providing rights of first refusal and co-sale rights among Cyras and some of its stockholders, as well as certain registration rights agreements, shall have been terminated.

CONDITIONS PRECEDENT TO CYRAS'S OBLIGATIONS

Cyras's obligations to effect the merger are subject to the satisfaction of the following conditions prior to the closing date:

- CIENA must have performed and complied in all material respects with all agreements and conditions of the merger agreement prior to or at the closing and each of CIENA's representations and warranties in the merger agreement must be true and correct in all material respects;

- Cyras must have received the favorable written opinion of Hogan & Hartson L.L.P., counsel to CIENA, as to the legal validity of the shares of CIENA common stock to be issued in the merger;

- Cyras must have received the opinion of Brobeck, Phleger & Harrison LLP, counsel to Cyras, to the effect that the merger will constitute a reorganization within the meaning of Section 368(a) of the Internal Revenue Code; and

- The execution and delivery by CIENA and the escrow agent of the escrow agreement.

TERMINATION OF THE MERGER AGREEMENT

The merger agreement may be terminated, and the merger may be abandoned at any time prior to the closing date:

- by the mutual agreement of the boards of directors of Cyras and CIENA;

- by CIENA or Cyras if:

  * the closing has not occurred by June 30, 2001, or the approval of Cyras's stockholders as required by the merger agreement has not been obtained at a meeting convened for that purpose, except that this right to terminate the merger agreement is not available to any party who has caused the delay in the closing date by failing to fulfill its obligations under the merger agreement; or

  * any order permanently restraining, enjoining or otherwise prohibiting the merger shall be in place.

- by Cyras if:

  * prior to receipt of stockholder approval of the merger, Cyras's board of directors authorizes Cyras, subject to complying with the merger agreement, to enter into a binding written agreement concerning a superior proposal, except that this right to terminate will not be available to Cyras if it is in material breach of the merger agreement; or

* CIENA breaches any material representation, warranty, covenant or agreement in the merger agreement, and fails to cure the breach thirty days after receiving written notice of it.

- by CIENA if:

* Cyras's board of directors has withdrawn, modified or amended its recommendation in favor of the merger or approved, recommended or entered into an agreement with respect to, or consummated, or taken specified steps toward the approval or consummation of any acquisition proposal from a person other than CIENA or any of its affiliates; or

* Cyras breaches any material representation, warranty, covenant or agreement in the merger agreement, and fails to cure the breach thirty days after receiving written notice of it.

If Cyras seeks to terminate the merger agreement in order to accept a superior proposal under the first bullet point under the heading "by Cyras if", prior to effecting that termination the Cyras board of

63

directors must provide CIENA with at least five business days' prior written notice of its intent to terminate the agreement, and in the event that CIENA has made a counterproposal during that five-day period, the Cyras board of directors must determine in good faith, after consultation with its outside legal counsel and its financial advisors, that the CIENA counterproposal is not at least as favorable as the superior proposal, taking into account the long-term value to stockholders of the revised merger consideration and the strategic nature of the proposed merger with CIENA.

In the event of termination of the merger agreement by Cyras under the circumstances described in the first bullet point under the heading "by Cyras if", or by CIENA under the circumstances described in the first bullet point under the heading "by CIENA if", Cyras must pay CIENA a termination fee of $80 million, as well as reimbursement of up to $1.5 million for expenses incurred by CIENA in the merger negotiation. However, except as described in the next sentence, Cyras will have no obligation to pay a termination fee or to reimburse CIENA's expenses if the merger agreement is terminated by CIENA as a result of a modification, withdrawal or amendment in a manner adverse to CIENA of Cyras's board of director's recommendation to its stockholders and the principal reason for the change is a development or combination of developments relating to CIENA that, individually or in the aggregate, has had or is reasonably likely to result in a material adverse effect on CIENA. Cyras will also be required to pay the $80 million termination fee and to reimburse CIENA's out-of-pocket expenses if the merger agreement is terminated by either party as a result of the failure to obtain stockholder consent or by CIENA in the event of a change in the Cyras board recommendation for reasons relating to a material adverse effect on CIENA, if:

- at the time of Cyras's stockholders meeting to vote on the merger or the change in the board recommendation, as applicable, any person shall have made an acquisition proposal to Cyras or any of its stockholders or shall have publicly announced an intention to make an acquisition proposal with respect to Cyras; and

- Cyras enters into an agreement concerning a transaction that constitutes an acquisition proposal within 12 months of termination of the merger agreement.

WAIVER AND AMENDMENT OF THE MERGER AGREEMENT

At any time prior to the effective time of the merger, the parties to the merger agreement may agree to:

- extend the time for the performance of any obligation or other act required to be performed under the merger agreement;
- waive any inaccuracies in the representations and warranties contained in the merger agreement or in any document delivered pursuant to the merger agreement;
- waive compliance with any of the agreements or conditions contained in the merger agreement; or
- amend the merger agreement.

In the event that any condition to closing, such as receipt of tax opinions, is waived or amended with an effect that would be material to a Cyras stockholder's investment decision, it is the intention of Cyras's board of directors to resolicit the vote of Cyras stockholders.

EXPENSES

Cyras and CIENA will pay their own expenses incidental to the preparation of the merger agreement, the carrying out of the provisions of the merger agreement and the consummation of the transactions contemplated by the merger agreement.

STOCKHOLDER AGREEMENTS

VOTING

The directors and officers of Cyras and their affiliates, owning in the aggregate 58.9% of the common stock and 40.3% of the preferred stock, each as of the date of the merger agreement, have signed stockholder agreements in which they have agreed to do the following:

- vote in favor of adopting and approving the terms of the merger agreement;
- vote in favor of the automatic conversion of the preferred stock, as provided in Cyras's certificate of incorporation, if the stockholder holds preferred stock; and
- vote against any alternative acquisition proposal and any amendment of Cyras's certificate of incorporation or bylaws, which amendment would in any manner impede, frustrate, prevent or nullify the merger or the merger agreement or change in any manner the voting rights of any class of capital stock of Cyras.

These stockholders have also agreed not to:

- sell, transfer, pledge, assign or otherwise dispose of, or enter into any contract, option or other arrangement (including any profit-sharing arrangement) with respect to the transfer of their Cyras shares to any person;

- enter into any voting arrangement, whether by proxy, voting agreement or otherwise, in relation to their Cyras shares; or

- permit any affiliate, director, officer, employee, investment banker, attorney or other advisor or representative of the stockholder to, (1) directly or indirectly solicit, initiate or knowingly encourage the submission of, any alternative acquisition proposal or (2) directly or indirectly participate in any discussions or negotiations regarding, or furnish to any person any information with respect to, or facilitate any inquiries or the making of any proposal that constitutes or may lead to, any alternative acquisition proposal.

The form of this stockholder agreement is attached as Appendix D to this prospectus and proxy statement.

GRANT OF OPTION

The individuals who have entered into the stockholder agreements have also granted to CIENA an irrevocable option to purchase the shares of Cyras stock that are owned beneficially or of record by them pursuant to the stockholder agreement.

CIENA may exercise the option if, on or after the date of the merger agreement:

- Cyras stockholders do not approve the merger agreement;

- the Cyras board of directors withdraws, or modifies in a manner adverse to CIENA, its recommendation of the merger agreement and the merger or recommends another acquisition proposal;

- any other event occurs which would require Cyras to pay CIENA the termination fee provided for in the merger agreement, but without the necessity of CIENA having terminated the merger agreement; or

- the person who granted CIENA the option commits a material breach of its obligations described under "Terms of the Merger Agreement and Related Transactions -- Stockholder Agreements."

The option price is payable in cash or in stock, at the discretion of CIENA, at an exercise price equal to the product of the common stock exchange ratio, calculated as described above, as if the merger

became effective on the date CIENA exercised its option, and the average closing price of CIENA common stock for the twenty trading days preceding the date the notice of exercise of the option is given.

CIENA may exercise the option in whole or in part, at its discretion. However, if it elects to exercise the option only in part, CIENA must purchase the total number of shares it is seeking on a pro rata basis from the Cyras stockholders who have granted the options to CIENA.

If CIENA exercises the option and pays in stock, it must promptly prepare and file a registration statement on Form S-3 under the Securities Act registering the resale of the CIENA common stock issued to the stockholders upon exercise of the option. CIENA must then use its reasonable efforts to cause the registration statement to be declared effective and to keep that registration effective until all the shares can be sold pursuant to Rule 144 under the Securities Act without regard to the volume restrictions under Rule 144(e).

Prior to the termination of the option, the stockholder may not, without the consent of CIENA, sell, transfer, pledge, assign or otherwise dispose of any of the shares of Cyras stock that are subject to the option or take any other action that would prevent the stockholder from fulfilling its obligations in connection with the grant of the option.

The option will terminate upon the earliest of:

- the effective time of the merger;

- the termination of the merger agreement other than as described immediately below; or

- twelve months following the termination of the merger agreement if the merger agreement is terminated:

    - by either CIENA or Cyras because the Cyras stockholders do not approve the merger agreement; or

    - by CIENA because the Cyras board of directors withdraws, or modifies in a manner adverse to CIENA, its recommendation of the merger agreement and the merger or recommends another takeover proposal.

CIENA required that the stockholders deliver the option as a condition to CIENA's willingness to enter into the merger agreement. By agreeing to grant the option, the stockholders were able to provide reasonable certainty to CIENA that the merger would be completed as contemplated in the merger agreement. Although the number of shares subject to the option is insufficient to ensure approval of the merger, if the option is exercised under the circumstances described above, depending on the number of shares of Cyras common stock outstanding at that time, CIENA may be able to prevent or delay the consummation of an alternative proposal, and would also profit from an alternative proposal that is completed at a price higher than the option price. The options however do not affect the directors' fiduciary duties to stockholders or their ability under the merger agreement to pursue a superior proposal.

RESTRICTIONS ON RESALES BY AFFILIATES

AFFILIATES OF CYRAS. The shares of CIENA stock to be issued to Cyras stockholders in the merger have been registered under the Securities Act. These shares may be traded freely and without restriction by those stockholders not deemed to be "affiliates" of Cyras as that term is defined under the Securities Act. An affiliate of a corporation, as defined by the rules promulgated under the Securities Act, is a person who directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, that corporation. Any transfer by an affiliate of Cyras must be one permitted by the resale provisions of Rule 145 promulgated under the Securities Act. This restriction is expected to apply to the executive officers and directors of Cyras. If a Cyras affiliate becomes an affiliate of CIENA, any transfer must be permitted by the resale provisions of Rule 144 promulgated under the Securities Act or otherwise permitted under the Securities Act. CIENA has agreed in the merger agreement to file a resale registration statement on Form S-3 following closing of the merger, to permit resales by former Cyras affiliates without regard to the resale provisions of Rule 145.

UNAUDITED PRO FORMA COMBINED FINANCIAL DATA

The following unaudited pro forma combined financial data present the

effect of the pending merger between CIENA and Cyras to be accounted for as a purchase. The unaudited pro forma combined balance sheet presents the combined financial position of CIENA and Cyras as of January 31, 2001 assuming that the proposed merger had occurred as of that date. Such pro forma information is based upon the historical consolidated balance sheet data of CIENA as of January 31, 2001, and the historical balance sheet data of Cyras as of December 31, 2000. The unaudited pro forma combined statement of operations for the year ended October 31, 2000 gives effect to the pending merger of CIENA and Cyras for the year ended October 31, 2000, as if such acquisition had occurred on November 1, 1999. This includes Cyras's combined historical results for the three months ended December 31, 1999 and the nine months ended September 30, 2000 with CIENA's historical consolidated results for the year ended October 31, 2000. The pro forma quarter ended January 31, 2001 combined statement of operations includes the consolidated statement of operations data from CIENA for the quarter ended January 31, 2001 and the statement of operations data from Cyras for the three months ended December 31, 2000.

The unaudited pro forma combined financial data are based on the estimates and assumptions set forth in the notes to such statements, which are preliminary and have been made solely for purposes of developing such pro forma information. The unaudited pro forma combined financial data are not necessarily an indication of the results that would have been achieved had the transaction been consummated as of the dates indicated or that may be achieved in the future.

67

UNAUDITED PRO FORMA COMBINED BALANCE SHEET
AS OF JANUARY 31, 2001
(IN THOUSANDS)

	HISTORICAL			PRO
	CIENA	CYRAS	ADJUSTMENTS	CO
ASSETS				
Current assets:				
Cash and cash equivalents	$ 176,725	$ 42,672	$ --	$
Marketable debt securities	82,958	102,848	--	
Accounts receivable, net	250,996	--	--	
Inventories, net	207,221	3,694	--	
Deferred income taxes	166,273	--	44,906A	
Prepaid expenses and other	41,012	2,189	--	
Total current assets	925,185	151,403	44,906	1,
Equipment, furniture and fixtures, net	212,376	7,412	--	
Goodwill and other intangible assets, net	8,851	--	1,658,114A	1,
Deferred debt issuance costs	--	7,750	(7,750)	
Other assets	20,740	835	--	
Total assets	$1,167,152	$ 167,400	$1,695,270	$3,
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)				
Current liabilities				
Accounts payable	$ 82,477	$ 8,307	$ --	$
Accrued liabilities	90,412	13,819	46,500A	
Income taxes payable	7,266	--	--	

Deferred revenue	19,923	--	--	
Other current obligations	1,082	1,862	--	
Total current liabilities	201,160	23,988	46,500	
Convertible subordinated notes	--	156,393	--	
Deferred income taxes	39,145	--	--	
Other long-term obligations	4,986	1,632	--	
Total liabilities	245,291	182,013	46,500	
Commitments and contingencies				
Convertible Preferred stock	--	67,312	(67,312)A	
Stockholders' equity:				
Common stock	2,881	6	246A	
Additional paid-in capital	615,898	134,989	1,779,104A	2,
Deferred stock compensation	--	(86,809)	(168,239)A,C	(
Notes receivable from stockholders	--	(8,970)	--	
Accumulated other comprehensive income	(810)	230	--	
Retained earnings	303,892	(121,371)	121,371A (16,400)A,B	
Total stockholders' equity (deficit)	921,861	(81,925)	1,716,082	2,
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	$1,167,152	$ 167,400	$1,695,270	$3,

UNAUDITED PRO FORMA COMBINED
STATEMENT OF OPERATIONS
YEAR ENDED OCTOBER 31, 2000
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	HISTORICAL			
	CIENA	CYRAS	ADJUSTMENTS	COMB
Revenue	$858,750	$ --	$ --	$ 85
Cost of goods sold	477,393	--	--	47
Gross profit	381,357	--	--	38
Operating expenses				
Research and development	129,069	31,662	41,913C	20
Selling and marketing	90,922	4,599	25,286C	12
General and administrative	34,000	5,122	17,817C	5
Settlement of accrued contact obligation	(8,538)	--	--	(
Amortization of intangibles	--	--	238,854B	23
Amortization of deferred stock compensation	--	17,360	(17,360)C	
Provision for doubtful accounts	28,010	--	--	2
Total operating expenses	273,463	58,743	306,510	63

Income (loss) from operations	107,894	(58,743)	(306,510)	(25
Interest and other income (expense), net	13,020	3,542	--	1
Interest expense	(340)	(1,738)	--	(
Interest expense -- accretion of redemption	--	(2,131)	--	(
Income (loss) before income taxes	120,574	(59,070)	(306,510)	(24
Provision (benefit) for income taxes	39,187	1	(39,188)D	
Net income (loss)	$ 81,387	$(59,071)	$(267,322)	$(24
Basic net income (loss) per common share	$ 0.29	$ (2.85)		$
Diluted net income (loss) per common and dilutive potential common share	$ 0.27	$ (2.85)		$
Weighted average basic common shares outstanding	281,621	20,719	1,067A	30
Weighted average basic common and dilutive potential common shares outstanding	299,662	20,719	(16,974)A	30

UNAUDITED PRO FORMA COMBINED
STATEMENT OF OPERATIONS
QUARTER ENDED JANUARY 31, 2000
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	HISTORICAL			
	CIENA	CYRAS	ADJUSTMENTS	COMBIN
Revenue	$351,989	$ --	$ --	$ 351,
Cost of goods sold	191,837	--	--	191,
Gross profit	160,152	--	--	160,
Operating expenses				
Research and development	43,511	23,070	10,478C	77,
Selling and marketing	29,636	4,094	6,322C	40,
General and administrative	11,145	5,296	4,454C	20,
Settlement of accrued contact obligation	--	--	--	
Purchased research and development	--	--	--	
Amortization of intangibles	--	--	59,714B	59,
Amortization of deferred stock compensation	--	17,688	(17,688)C	
Provision for doubtful accounts	--	--	--	
Total operating expenses	84,292	50,148	63,280	197,
Income (loss) from operations	75,860	(50,148)	(63,280)	(37,
Interest and other income (expense), net	4,296	2,682	--	6,
Interest expense	(87)	(2,783)	--	(2,

Interest expense -- accretion of redemption	--	(4,262)	--	(4,
Income (loss) before income taxes	80,069	(54,511)	(63,280)	(37,
Provision (benefit) for income taxes	26,823	1	(19,457)D	7,
Net income (loss)	$ 53,246	$(54,512)	$(43,823)	$ (45,
Basic net income (loss) per common share	$ 0.19	$ (1.77)		$ (0
Diluted net income (loss) per common and dilutive potential common share	$ 0.18	$ (1.77)		$ (0
Weighted average basic common shares outstanding	287,001	30,856	(9,070)A	308,
Weighted average basic common and dilutive potential common shares outstanding	300,956	30,856	(23,025)A	308,

NOTES TO UNAUDITED PRO FORMA
COMBINED FINANCIAL DATA

NOTE 1 -- BASIS OF PRESENTATION

On December 18, 2000, CIENA Corporation ("CIENA") entered into an agreement to merge with Cyras Systems, Inc. ("Cyras") in a transaction to be accounted for as a purchase. Cyras's stockholders, option holders and warrant holders will receive an aggregate total of 27,564,527 shares of CIENA common stock and shares subject to options or warrants, as applicable, in the merger. Assuming the acquisition was consummated on December 27, 2000, the stockholders of Cyras would have received approximately 25,167,016 shares of CIENA common stock of which an estimated 3,380,534 are restricted and subject to repurchase. Additionally, CIENA would have converted approximately 19,047,138 Cyras options and warrants into approximately 2,397,511 options and warrants to purchase CIENA common stock. Assuming the acquisition was consummated on December 27, 2000, the purchase price of the Cyras acquisition would have been approximately $1.9 billion including the estimated value of the CIENA shares and the estimated value of restricted common stock, vested and unvested options and warrants issuable upon consummation of the acquisition and estimated transaction costs of $46.5 million. These estimates are preliminary and the actual number of shares, stock options and warrants to purchase shares will depend on the actual number outstanding as of the date of consummation of the merger.

The estimated value of the CIENA common stock is approximately $78.80 per share based on the average closing price of CIENA's common stock for the five-day period including the date of the announcement of the signing of the merger agreement and the two days preceding and succeeding such date.

The purchase consideration is estimated as follows (in millions):

Common stock	$1,717.0
Assumption of Cyras options less intrinsic value of unvested options and restricted common stock	151.0
Estimated transaction expenses	46.5

	$1,914.5

The preliminary allocation of the purchase price using balances as of January 31, 2001 is summarized below (in thousands):

Tangible assets	$ 168,620
Deferred tax asset	44,906
Developed technology	168,600
In-process research and development	16,400
Workforce	10,400
Goodwill	1,479,114
Deferred stock compensation	255,048
Acquisition costs	(46,500)
Other assumed liabilities	(25,620)
Convertible subordinated notes	(156,393)
Total purchase price	$1,914,575

The actual purchase price allocation is also dependent upon the fair values of the acquired assets and assumed liabilities as of the acquisition date and the finalization of the preliminary valuation report. For pro forma purposes the convertible subordinated notes have been reflected at Cyras's December 31, 2000 carrying value, pending a determination of their estimated fair value. The $16.4 million amount allocated to in-process research and development represents the purchased in-process technology for projects that, as of the date of the acquisition, had not yet reached technological feasibility and had no alternative future

use. Based on preliminary assessments, the value of these projects was determined by estimating the resulting net cash flows from the sale of the products resulting from the completion of the projects, reduced by the portion of the revenue attributable to developed technology and the percentage of completion of the project. The resulting cash flows were then discounted back to their present value at appropriate discount rates.

The nature of the efforts to develop the purchased in-process research and development into commercially viable products principally relates to the completion of all planning, designing, prototyping and testing activities that are necessary to establish that the product can be produced to meet its design specification including function, features and technical performance requirements. The resulting net cash flows from such products are based on estimates of revenue, cost of revenue, research and development costs, sales and marketing costs, and income taxes from such projects.

The amounts allocated to in-process research and development will be charged to the statements of operations in the period the acquisition is consummated.

NOTE 2 -- PRO FORMA ADJUSTMENTS:

A To reflect acquisition of Cyras based on the preliminary purchase

price allocation described in Note 1.

B To reflect amortization of developed technology, goodwill and workforce over their estimated useful lives of seven, seven and three years respectively, as if the acquisition occurred on November 1, 1999. The $16.4 million amount allocated to in-process research and development has not been included in the unaudited pro forma combined statement of operations as it is nonrecurring, but is included in the unaudited pro forma combined balance sheet. This amount will be expensed in the period the acquisition is consummated.

C To eliminate historical deferred stock compensation and related amortization charges for Cyras stock option grants and record deferred stock compensation in accordance with FIN 44, "Accounting for Certain Transactions Involving Stock Compensation -- an interpretation of APB 25," related to Cyras unvested stock options and restricted common stock assuming a consummation date of December 27, 2000.

D To record pro forma combined provision for income taxes at a rate of 33.5% of income before taxes adjusted for permanent differences including amortization of intangible assets.

INFORMATION ABOUT CIENA

GENERAL

CIENA is a leader in the rapidly growing intelligent optical networking equipment market. We offer a comprehensive portfolio of products for communications service providers worldwide. Our customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers, wireless and wholesale carriers. CIENA offers optical transport and intelligent optical switching systems that enable service providers to provision, manage and deliver high-bandwidth services to their customers. We have pursued a strategy to develop and leverage the power of disruptive technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers.

CIENA's LightWorks is an optical networking architecture designed to change the fundamental economics of building service provider networks. LightWorks focuses on the three critical areas of optical networking: long-distance optical transport, short-distance optical transport and intelligent core switching. The products in CIENA's LightWorks combine the functionality of several current network elements into a single network element, thereby lowering the capital equipment requirements of a service provider and simplifying the network, in order to reduce a carrier's network operating costs.

The products of CIENA's LightWorks architecture can be sold together as a complete network solution or separately as best-of-breed solutions. Products include four generations of long distance optical transport systems: MultiWave 1600, MultiWave Sentry 1600, MultiWave Sentry 4000, and MultiWave CoreStream. CIENA's LightWorks architecture also includes CIENA's short distance optical transport products: MultiWave Firefly, MultiWave Metro, and MultiWave Metro One. CIENA's LightWorks architecture also includes its MultiWave CoreDirector family of optical core switching products. The recently introduced MultiWave CoreDirector is an intelligent optical core switch that allows carriers to

deliver a full range of transport services, without costly SONET/SDH (synchronous optical networks/synchronous digital hierarchy) multiplexers and with more flexibility than "wavelength only" devices.

ADDITIONAL INFORMATION

A detailed description of CIENA's business and various benefit plans, including stock option plans, financial statements and other matters related to CIENA is incorporated by reference in this prospectus and proxy statement or set forth in CIENA's Annual Report on Form 10-K for the year ended October 31, 2000 and Form 10-Q for the quarter ended January 31, 2001. Stockholders desiring copies of such documents may contact CIENA at its address or telephone number indicated under the caption "Where You Can Find More Information."

INFORMATION ABOUT CYRAS

BUSINESS

The following description of the business of Cyras does not give effect to the merger or any changes in Cyras's business that CIENA may effect following closing. The information set forth in this section was prepared by Cyras and any reference to "we" and "our" in this section refers to Cyras only.

Overview

Cyras designs, develops and markets next generation optical networking solutions for telecommunications carriers. Carriers are seeking transmission solutions that address their rapidly increasing capacity, reliability and functionality requirements in a cost effective manner. Cyras's solution will enable carriers to fundamentally change the manner in which they architect, operate and manage their metropolitan area networks, or MANs. The K2 product is designed to deliver the functionality of multiple pieces of equipment in a single platform, the network optimization and efficiency required in today's increasingly data-oriented environment and the cost-effectiveness and scalability that carriers demand. By deploying our products in the SONET network, carriers can optimize their use of existing capacity, transport data in native form without undergoing wasteful processing and more precisely allocate bandwidth to the parameters of the traffic being transported. The K2 product is designed to provide carriers with a solution that can be rapidly implemented with substantially less expensive initial capital investment and anticipated lower lifecycle costs, as compared to traditional transport systems.

Industry Background

Dramatic Increase in the Volume of Communications Traffic

Over the past decade, the volume of data communications traffic across the public network has grown dramatically, driven primarily by the demand for bandwidth-intensive applications and services, such as electronic mail, electronic commerce, streaming video, web and application hosting and remote access to corporate networks, much of which is transmitted via the Internet. The dramatic increase in data traffic and the deployment of these bandwidth-intensive applications and services have placed significant constraints on the traditional communications infrastructure, resulting in, among other things, network congestion, decreases in reliability and an inability to scale effectively with an ever-increasing volume of traffic. To meet these network demands, carriers are seeking ways to upgrade their communications networks by deploying new equipment designed, built and optimized for both data and voice traffic, while substantially preserving the existing

SONET network infrastructure.

The Communications Network Topology

The communications network actually consists of many interlinked networks, including the Internet, the public switched telephone network and virtual private corporate networks. This network consists of a vast conglomeration of equipment, typically owned by carriers and which cannot be changed easily without an interruption of service.

Bottleneck in the Metropolitan Area Network

The metropolitan area network, or MAN, currently consists primarily of traditional circuit-based equipment, such as add-drop multiplexers, or ADMs, and digital cross-connects, or DCSs, as well as next generation equipment for packet-based traffic, or data traffic which has been optimized for efficient transport. In addition, a limited amount of dense wave division multiplexers, or DWDMs, have been deployed in the MAN. ADMs aggregate lower speed traffic into higher speed traffic and vice versa. DCSs combine, consolidate and segregate circuit-based, or point-to-point traffic. DWDMs enhance the traffic-carrying capacity of optical fiber cable by transmitting several frequencies of light over a single strand. Current equipment in the optical transport network utilizes standard fiber-optic transmission signals called synchronous optical network, or SONET, or its international variant, synchronous digital hierarchy, or

SDH. SONET/SDH is a standard protocol for the electronics and network architecture that enables transmission of traffic across optical fiber. SONET architecture provided several key benefits to carriers relative to prior technologies including reliability, rapid restoration time, scalability and a multitude of services that can be delivered. During the last decade, SONET/SDH has proliferated throughout the network environment, and is expected to remain the dominant means of transmission in the MAN, making up the vast majority of the total communications infrastructure investment in the North American metropolitan market.

While SONET provides many benefits, the existing transmission equipment deployed in the MAN was not designed to support the massive increases in complex mixed traffic in today's networks, thereby limiting carriers' abilities to quickly and easily respond to the demands of their customers. The lack of a flexible and scalable alternative has required carriers to invest in ever increasing quantities of equipment, resulting in networks that are complex, extremely costly, very inefficient and difficult and time-consuming to upgrade.

Limitations of Existing SONET Equipment

Cost of Ownership. The initial and ongoing maintenance costs associated with the different types of equipment each carrier must deploy to support multiple protocols have been a significant limitation for traditional SONET networks. Furthermore, the process of expanding the capacity of a SONET network with traditional equipment is time-consuming and requires a major capital investment by the carrier. Changes or upgrades to existing equipment are expensive and require significant time and effort to implement and increase the risk of network downtime. An equipment upgrade can take days to implement, necessitating carriers to incur the expense of building a second, fully redundant network to ensure uninterrupted service during network upgrades. Alternatives, such as building an all optical network, at least in the near-term, are too expensive and would require abandoning the substantial existing SONET infrastructure.

Designed for Circuit-Based Traffic. Some of the problems associated with existing SONET equipment are:

- Traditional SONET equipment only supports strictly defined, fixed transfer rates which are characteristic of circuit-based traffic. Traffic is slotted into a specific bandwidth whether or not the bandwidth is completely utilized and irrespective of traffic type. Circuit-based equipment was designed for voice transmission, which has predictable bandwidth requirements. Traditional SONET equipment is circuit-based and accommodates data traffic by using more bandwidth than the traffic warrants, resulting in wasted bandwidth.

- Traditional SONET equipment treats data-oriented protocols such as ATM and native Ethernet as if they were simple circuit-based traffic. As a result, bandwidth is wasted because traffic cannot be managed in a way that efficiently utilizes the available capacity. If a carrier has greater ability to manage how the traffic moves through its network, it can offer subscriptions to end users requiring, in the aggregate, more bandwidth than the network actually has. It can do this because not all end users utilize all of the bandwidth for which they subscribe all the time. Bandwidth is only assigned in the network when data is sent or received, known as the statistical multiplexing of traffic.

Large Footprint/Excessive Power Consumption. Traditional SONET equipment was designed with micro-electronic technology that was developed several years ago. It uses discrete components that are expensive and take up a considerable amount of equipment space. With the advent of technologies like application specific integrated circuits, or ASICs, the functionality that formerly required several discrete components can now be accomplished with a single ASIC, thereby reducing size and cost considerably. However, separate equipment must still be dedicated to each service type because traditional equipment is unable to aggregate multiple protocols at multiple rates. In addition, most applications require several pieces of equipment to effectively aggregate and transport different types of traffic. At the same time, available rack space has become scarce due to regulatory developments which require carriers to provide

space for competitors' equipment. Further, carriers have a limited power budget in each of their central offices, constraining the amount of traditional equipment they can add to their networks.

Supports Only Simple Topologies. Traditionally, SONET equipment has been deployed in ring configurations that closely adhere to the physical topology of the actual fiberoptic cable installation. Ring topologies lend themselves well to circuit-based point-to-point traffic because there is no significant processing required on the channel through which this traffic must travel. However, the protection mechanism used for standard ring topologies, one-to-one, causes as much as half the available bandwidth to be wasted. More complex topologies such as mesh permit significantly less than half of the available bandwidth to be allocated solely for protection. However, traditional SONET equipment was not designed to support these more complex topologies.

THE OPPORTUNITY

Carriers are seeking to deploy next generation optical networking equipment that is capable of overcoming the limitations associated with existing SONET equipment.

While traditional SONET equipment is widely deployed in both long-haul

networks and in MANs, new service requirements across the metropolitan area have created demand for data-optimized, multi-service optical equipment. This equipment is expected to provide seamless integration with traditional SONET networks, while enabling carriers to reduce costs and network congestion, support new services and offer "carrier class" reliability.

OUR OPTICAL SOLUTION

Cyras has designed an optical platform known as the K2 product and its element management system, COMPASS. The K2 product is designed to enable the cost-effective migration from circuit-based networks to data-optimized networks, significantly enhancing telecommunications carriers' competitive position. Our solution has a switching capacity of 80 Gbps and a backplane that can support up to 480 Gbps. With a single optical switching platform that addresses the metro access, transport and core markets, or trans-metro market, the entire SONET network hierarchy between the customer premises, central office and major switch sites/IXCs' POPs can be streamlined. The K2 product is designed to integrate seamlessly into existing SONET network infrastructures and help maximize the value of equipment investments within the MAN, while transcending the metro gridlock that has impeded migration to data-optimized networks.

Cyras believes its optical solution offers carriers broad, cost-effective, scalable functionality by providing the following benefits:

Multiple Protocols, Single SONET Platform

Traditional SONET transport system architectures have been optimized for circuit-based services. The K2 product is a data-optimized SONET platform that enables carriers to substantially reduce the complexity of their equipment needs by enabling them to reduce the number of pieces of equipment they are now required to purchase. Cyras's platform is designed to aggregate most widely used traffic types operating at multiple rates, and efficiently deliver this traffic for transmission over an optical network.

Highly Scalable Platform

The K2 product is designed to scale to provide up to 80 Gbps of aggregate switching capacity in response to unpredictable network growth, usage and demand for new services, enabling our prospective customers to quickly take advantage of future revenue opportunities. For data transport applications the K2 product will offer scalable interfaces from 10 Mbps Ethernet, to the highest speed commonly offered ATM service, OC-12 (622 Mbps). Circuit-based services will be supported at line rates from DS-1 (1.544 Mbps) which is the lowest commonly used service speed, to multiple OC-192s (10 billion bits per

second), which is the highest commonly used service speed. In addition, the K2 product is expected to have a higher port density per shelf than other commercially available SONET ADMs.

Optimizing SONET for Data

The following functions of the K2 product will enable carriers to optimize SONET for data traffic:

- Statistical Multiplexing -- Allows carriers to offer more subscriptions to end users by utilizing previously wasted bandwidth.

- Native Protocol Support -- Eliminates the need to convert and reconvert data traffic into transitionary protocols, thereby increasing the amount

of usable bandwidth.

- Arbitrary Concatenation -- Customizes the bandwidth in the network based on the volume of traffic with greater precision than would otherwise be possible with other equipment, thereby increasing network efficiency.

Provisioning Flexibility and Network Management Interoperability

Designed as a carrier-class platform, COMPASS is the network management system for the K2 product. It is designed to provide easy, integrated management for both circuit-based services and data-oriented services. COMPASS will allow carriers to quickly provision and deliver these services, minimize downtime by enabling in-service changes and upgrades for both hardware and software, and enable carriers to effectively manage their offerings and service level agreements. As carriers increase the capacity of their networks, they can reconfigure the K2 product using COMPASS without the need to replace interface cards or ports. The same flexibility exists for shifting a port from a Frame Relay to ATM service or vice versa through a software change. The actual provisioning of services is easily accomplished within seconds using a Java-based graphical user interface which presents a graphical version of each K2 product and the entire network to enable easy initiation of service and maintenance. Furthermore, the K2 product and COMPASS are designed to easily integrate with existing network management systems, providing high quality carrier-class, multi-service management. Cyras is in the process of obtaining certification under the Operations Systems Modifications for the Integration of Network Elements, or OSMINE, standard and we actively participate in developing industry-wide standards, such as Multi Protocol Lambda Switching, or MPLS, to continue to facilitate end-to-end interoperability.

Supports Multiple Topologies

The K2 product is designed to support both advanced mesh network topologies that will be deployed as carriers migrate to a more data-optimized optical network architecture and topologies in the current SONET networks. This flexibility provides a migration path for carriers allowing them to leverage their existing infrastructure as end user requirements and technologies evolve.

Increased Network Flexibility

The multiple switching fabrics within the K2 product will allow it to support protocols that span circuit, ATM and native Ethernet thereby providing a high level of network flexibility with respect to protocols, protection schemes, data rates and topologies currently used in the industry. The K2 product interface cards ranging from DS-1 or E-1 to an OC-48 or STM-16 can be plugged into any of the twelve available interface slots.

Cost-Effective Deployment and Lower Lifecycle Costs

Cyras's platform is intended to provide carriers with a solution that can be rapidly implemented with a substantially less expensive initial capital investment and anticipated lower lifecycle costs, as compared to traditional transport systems. The K2 product is designed to enable carriers to more easily deploy new services, eliminating the need to make modifications to the hardware elements of the network by, among other things, using fewer types of interface cards. The multi-service capabilities of COMPASS are

77

designed to enable rapid deployment of new services and/or upgrades. COMPASS has a graphical user interface that works on a low cost PC platform. The software is capable of guiding operators through tasks and has sophisticated problem isolation capabilities, reducing the need for live operators.

Substantially Smaller Footprint and Lower Power Consumption

The K2 product is designed to integrate the functions of multiple platforms including DCS, ADM and DWDM in one shelf, while at the same time supporting fractional DS-1 to OC-192 transmission rates. The platform's small footprint ensures optimal rack space. Up to three K2 products can be mounted on a single 19-inch by 7-foot rack, providing the functionality comparable to several racks of traditional equipment. Power usage is significantly less than an equivalent number of discrete pieces of equipment performing the same functions.

Carrier-Class Reliability

The K2 product is designed to offer carrier class reliability for mission-critical or lifeline services, such as 911. As such, all parts of the system containing electrical components can be configured to be redundant. Further, our platform has been certified for compliance with the stringent Bellcore network equipment building specifications, or NEBS. The system is conditioned for a wide variety of environments certified to the NEBS Level 3 certification which requires it to be subjected to severe environmental testing, including temperature tests. The K2 product is designed to perform reliably in a wide variety of physical locations within the optical transport network, including central offices, major switch/IXC POPs and multi-tenant office building.

PRODUCTS

K2 Product Trans-Metro Optical Platform

The K2 product is designed for carriers facing the ever-increasing need for usable, cost-effective bandwidth. The K2 product is a next generation optical transport platform with a circuit switching capacity of 80 Gbps, a packet processing of 5 Gbps and a backplane capable of supporting up to 480 Gbps designed to dramatically lower the cost and increase the efficiency of bandwidth delivery within the entire MAN.

TECHNOLOGY

The K2 product incorporates the following technologies:

Flexible Slot Architecture. The K2 product interface cards ranging from a DS-1 to an OC-192 can be plugged into the available interface slots. Further, a plug-and-play architecture for the interface cards allows the K2 product to seamlessly manage circuit-based and data-oriented protocols, such as circuit, ATM and native Ethernet.

ASIC/Backplane Integration. Cyras has developed two proprietary ASICs, both of which are included in the K2 product. These ASICs have significant component integration with up to 1.5 million gate counts per ASIC. Cyras is also working on several additional next generation ASICs to increase scalability and reduce costs. We have developed a proprietary purely passive backplane that can support speeds up to 480 Gbps. Our ASIC technology and backplane enable support for ADM and DCS functionality.

Flexible Optical Card. Cyras has developed a multi-port optical card that can instantaneously provision any port to be configured as OC-3 or OC-12 through software. This card can permit any of the ports to be configured to handle ATM, Frame Relay, DSL, IP and native Ethernet traffic.

Integrated DCS. The backplane gives each interface slot full access to the central circuit switch. This switch can groom traffic in STS-1 granularity, up to an aggregate capacity of STS-768 to and from any port on any card. Using

redundant circuit switch slots, the K2 product can also be configured as a fully protected broadband DCS.

Integrated Statistical Multiplexing. Using a packet/cell switching fabric that can plug into any interface slot, the K2 product allows data traffic from all ports to be statistically multiplexed to optimize the bandwidth for data traffic. Each individual packet/cell switching fabric can scale up to 10 Gbps and multiple switching fabrics can be deployed to increase the overall statistical multiplexing capability.

CUSTOMERS

Cyras's target customers include large telecommunications carriers with whom it believes it can develop long-term strategic relationships, including RBOCs, large IXCs, large CLECs and foreign carriers. Cyras is in customer trials with several companies.

RESEARCH AND PRODUCT DEVELOPMENT

Our future success depends on our continued ability to develop and introduce new products, product enhancements and technology that can support a broad array of network protocols and access methods. Our success in meeting these objectives is dependent on the efforts of our research and development team. To this end, we have assembled a team of highly-skilled engineers with extensive experience in a variety of network system architecture disciplines that work in parallel on several projects. These individuals have been drawn from leading computer data networking and telecommunications companies.

We have invested, and intend to continue to invest, significant time and resources in our research and development activities. We intend to continue to build our research and development efforts, cross-leveraging our intellectual property and technical expertise. At present, our engineers are focused on improving our existing product offering, the K2 product and COMPASS, developing next generation hardware and software products and designing ASICs that will better enable domestic and international telecommunications carriers to meet the demands of their end customers. As of December 31, 2000, we employed 171 people in our research and development group.

SALES AND MARKETING

As an independent company, we plan to sell and market our products primarily through our direct sales organization. Cyras's direct sales organization establishes and maintains direct relationships with our prospective customers. In addition, Cyras has a team of consulting engineers who will provide our prospective customers with guidance and assistance with the deployment of our product. These consulting engineers also help define the features that are required for our product to be successful in specific applications. Cyras's selling efforts have focused on establishing relationships with key individuals at various levels in our prospective customers' organizations. Cyras has centered its marketing efforts around building brand awareness with a targeted customer base.

Cyras has focused its sales efforts on large carriers with whom we believe we can develop long-term strategic relationships. However, initial sales are more likely to be to emerging IXCs, CLECs and independent carriers while we are in trials with the major carriers. Additionally, Cyras has designed its product to permit deployment in the international marketplace and we intend to pursue international carriers. As of December 31, 2000, Cyras employed 37 people in the sales and marketing organizations.

CUSTOMER SERVICE AND SUPPORT

Cyras is committed to providing its customers with high levels of service and support. Our service and support organization will provide support through a variety of mechanisms. Telephonic support will be available on a 24 hours a day, seven days a week basis. Our customers will be able to obtain repair and replacement of equipment in a timely manner. In addition, Cyras expects to offer a variety of training courses either at its facilities or on-site at our customers' facilities.

79

COMPETITION

We compete in a rapidly evolving and highly competitive market. The telecommunications networking market is primarily dominated by products from Fujitsu, Lucent and Nortel. In addition, a number of large companies, including Cisco, and emerging companies, including ONI, Redback and Sycamore, offer or are developing products and technologies which are likely to compete with ours. We believe that the principal competitive factors in this market include, or are likely to include, price, product performance, initial and lifecycle cost, interoperability, flexibility, scalability, service and support with a broad range of network systems.

In order to compete effectively, we believe we must deliver products that:

- provide a cost-effective optical transport solution to our customers both initially and throughout the entire system lifecycle;

- support multiple access technologies and network protocols;

- scale easily and efficiently without disruption of carrier service to evolve with our prospective customers;

- perform reliably in a wide variety of physical locations and environments; and

- are flexible and interoperate with existing network designs and equipment.

PATENTS AND INTELLECTUAL PROPERTY RIGHTS

Our success and ability to compete are substantially dependent upon our internally developed technology and know-how. Cyras has filed 18 patent applications and are currently preparing a number of patent applications seeking protection for our technology. We use a combination of patent, copyright and trademark laws, trade secrets, confidentiality procedures and contractual provisions to protect our proprietary rights with respect to the K2 product and related technologies. Additionally, Cyras seeks to protect software, documentation and other written materials under trade secret, patent and copyright laws, which may afford only limited protection.

While we will use patent, copyright, trade secret and trademark law to protect our technology, we also believe that factors such as the technological and creative skills of our personnel, new product developments, frequent product enhancements and reliable product maintenance are essential to establishing and maintaining a technology leadership position.

Our patent strategy is designed to protect corporate technology assets, to create access to additional technology through cross-licensing opportunities,

and to create opportunities for additional revenue through technology licensing. To accomplish this, we have filed and will continue to file patent applications that cover different aspects of our intellectual property. We may seek additional patents in related technology areas that would enable cross-licensing with others in the telecommunications industry, or that would offer revenue opportunities through technology licensing. Where useful or necessary, we have and will continue to license technologies from third parties.

MANUFACTURING

Cyras currently outsources its entire manufacturing and assembly operation to a subcontractor. The subcontractor is a third-party manufacturer of telecommunications and data networking equipment, which has a high capacity ISO 9002-registered facility and specializes in the manufacture of high-end telecom and data networking equipment. The subcontractor provides full turnkey production and is required to ship the finished products, at our direction, to us or directly to our prospective customers upon submission of purchase orders. Cyras designs, specifies and monitors all of the tests that are required to meet functional requirements. Our agreement with the subcontractor may be terminated at any time with three months notice.

Several key components for our platform including our transponders and our ASICs are acquired from single or limited sources.

EMPLOYEES

As of December 31, 2000, we had 269 full-time employees, 171 of whom were engaged in research and development, 37 in sales and marketing and 61 in finance and administration. None of our employees is represented by a labor union. We have not experienced any work stoppages and we consider our relations with our employees to be good.

FACILITIES

We lease approximately 61,500 square feet of office space in Fremont, California pursuant to a lease that expires in December 2006. We also lease sales offices in Richardson, Texas, Denver, Colorado and Reston, Virginia. On October 16, 2000 we entered into an agreement to lease an additional approximately 53,000 square feet of office space in Fremont, California, from the period beginning March 1, 2001 through March 1, 2013.

LEGAL PROCEEDINGS

We are currently not a party to any material legal proceedings.

CYRAS SYSTEMS, INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion contains forward-looking statements. The forward-looking statements reflect Cyras's current views with respect to future events and financial performance and are subject to risks, uncertainties and assumptions. The following discussion does not give effect to the merger or any changes in Cyras's business that CIENA may effect following closing. The information set forth in this section was prepared by Cyras and any reference to

"we" and "our" in this section refers to Cyras only.

Overview

We design, develop and market next generation optical networking solutions for telecommunications carriers. We were incorporated on July 24, 1998 in the state of California, and have been a development stage company since that time. We reincorporated in Delaware on November 28, 2000. Our operating activities have consisted primarily of research and development, product design, manufacturing and testing. We have not yet sold any products. Our success will depend on our ability to sell the K2 product to a limited number of prospective customers. We have recruited and trained our marketing, financial, administrative and customer support organizations and are in the process of building our direct sales force.

We are focusing our sales efforts on large carriers with whom we believe we can develop long-term relationships. We believe it is important to take a targeted approach to the implementation of our sales strategy and have specific account managers focused on the largest carriers, including RBOCs, large IXCs, large CLECs and foreign carriers. These carriers have very stringent performance standards and require extensive testing and certification. Accordingly, our sales cycle to these carriers will be long and will likely result in our initial revenue being generated from emerging IXCs, CLECs and independent carriers while we are in trials with the major carriers. From inception through December 31, 2000, we have incurred net losses of approximately $121.4 million. We expect to continue to incur substantial and increasing operating losses and experience substantial negative cash flow as we expand our business.

Results Of Operations

Comparison of Year Ended December 31, 1999 and 2000

Research and Development Expenses. Research and development expenses were $51.0 million for the year ended December 31, 2000, an increase of $41.6 million over the comparable period of 1999. The increase in research and development expenses was due primarily to significant increases in headcount to support the Company's product development efforts. Additionally, product development expenses, such as prototype expenses and non-recurring engineering costs, were higher in 2000 as compared to 1999. As of December 31, 2000 and 1999, we had 171 and 82 research and development employees, respectively.

Sales and Marketing Expenses. Sales and marketing expenses were $8.5 million for the year ended December 31, 2000, an increase of $8.0 million over the comparable period of 1999. The increase in sales and marketing expense reflects the increase in personnel. As of December 31, 2000 and 1999, we had 37 and 2 sales and marketing personnel, respectively.

General and Administrative Expenses. General and administrative expenses were $9.4 million for the year ended December 31, 2000, an increase of $7.2 million over the comparable period in 1999. The increase in general and administrative expenses was due primarily to increases in headcount to support increasing levels of business activity. As of December 31, 2000 and 1999, we had 61 and 6 general and administrative personnel, respectively.

Interest Income. Interest income includes income on cash equivalents and short-term investments. Interest income was $5.7 million in the year ended December 31, 2000. This compares with interest income of $0.9 million in year ended December 31, 1999. The significant increase in interest income was the result of increased cash and short-term investment balances, resulting from the Company's debt and equity offerings during 1999 and 2000.

Interest Expense. Interest expense includes expense related to the Company's term loans and capital leases, as well as accrued interest and amortization of debt issuance costs in connection with the issuance of $150 million 4 1/2% convertible subordinated notes on August 15, 2000. Interest expense was $4.4 million in the year ended December 31, 2000. This compares with interest expense of $0.5 million in the year ended December 31, 1999. The increase in interest expense was primarily the result of the issuance of $150 million 4 1/2% convertible subordinated notes.

Interest Expense -- Accretion of redemption premium. In August 2000, the Company issued $150 million 4 1/2% convertible subordinated notes due August 15, 2005. The notes will be convertible to common stock upon certain qualifying events, including an initial public offering (IPO) of our common stock. The indenture provides that if an IPO has not occurred on or before March 31, 2002, the Company is obligated to make an offer to repurchase the notes at 118.9% of the principal balance thereof on April 30, 2002. The Company is accreting the value of the put premium over the period prior to the put option exercise date, such that the carrying value of the notes equals the put price at the date the put is exercisable. Accretion of the put premium was $6.4 million during the year ended December 31, 2000.

Comparison of Year Ended December 31, 1998 and 1999

We were incorporated on July 24, 1998 and incurred a net loss of approximately $726,000 during the period ended December 31, 1998. Operations during this period reflect formation costs, fundraising, initial product design and market research.

Research and Development Expenses. Research and development expenses were $9.3 million in 1999, an increase of $8.8 million from $526,000 in 1998. Research and development represented 77% and 66% of total operating expenses in 1999 and 1998, respectively. The increase in expenses was primarily related to growth in personnel and in expenditures related to design, development, prototype, manufacture and testing of the K2, as well as 1999 representing a full year of operations. At December 31, 1999, there were 82 research and development employees, an increase of 65 from 17 at December 31, 1998.

Sales and Marketing Expenses. Sales and marketing expenses were $493,000 in 1999, an increase of $415,000 from $78,000 in 1998. Sales and marketing expenses represented 4% and 10% of total operating expenses in 1999 and 1998, respectively. The increase in expenses was primarily related to the increase in personnel, including the establishment of a direct sales force and customer service and support team, as well as costs associated with tradeshows, promotional activities and public relations. In addition, 1999 represented a full year of operations. There were two sales and marketing employees at December 31, 1999, compared with one at December 31, 1998.

General and Administrative Expenses. General and administrative expenses were $2.3 million in 1999, an increase of $2.1 million from $190,000 in 1998. General and administrative expenses represented 19% and 24% of total operating expenses in 1999 and 1998, respectively. The increase in expenses was primarily related to increased staffing in finance, administrative and human resources and an increase in legal and professional services associated with our growing business activities, as well as 1999 representing a full year of operations. There were six and one general and administrative employees at December 31, 1999 and 1998, respectively.

Interest Income, Net. Interest income, net, was $436,000 in 1999, an increase of $367,000 from $69,000 in 1998. The increase was primarily due to the interest income earned on proceeds from sales of preferred stock in 1999.

LIQUIDITY AND CAPITAL RESOURCES

From inception through December 31, 2000, we financed our operations primarily from private sales of common stock and convertible preferred stock for net proceeds of approximately $70.8 million, from the issuance of convertible subordinated notes of $141.6 million, from term loans of $3.0 million and from capital leases of $3.0 million.

We used $50.8 million of cash in operating activities for the year ended December 31, 2000 and we used $8.9 million of cash in operating activities for the year ended December 31, 1999. Net cash used in operating activities for the year ended December 31, 2000 was primarily the result of our net loss of $108.9 million and an increase in prepaid expenses and other current assets, partially offset by certain non-cash charges of $54.9 million and increases in accounts payable and accrued expenses. Net cash used in operating activities for the year ended December 31, 1999 was primarily the result of our net loss of $11.7 million and an increase in prepaid expenses and other current assets, partially offset by certain non-cash charges of $0.9 million and increases in accounts payable and accrued expenses.

We used $103.8 million of cash in investing activities for the year ended December 31, 2000 and we used $1.5 million of cash in investing activities for the year ended December 31, 1999. Net cash used in investing activities for the year ended December 31, 2000 was primarily the result of the purchase of short-term investments and property and equipment. Net cash used in investing activities for the year ended December 31, 1999 was the result of the purchase of short-term investments.

We generated $154.6 million in cash from financing activities for the year ended December 31, 2000 and we generated $49.2 million in cash from financing activities for the year ended December 31, 1999. Net cash provided by financing activities for the year ended December 31, 2000 was due primarily to the proceeds from the private offering of 4 1/2% convertible subordinated notes of approximately $141.6 million, as well as proceeds from the issuance of series D and series E convertible preferred stock and common stock. Net cash provided by financing activities for the year ended December 31, 1999 was due primarily to the proceeds from the issuance of series C and Series D convertible preferred stock and common stock, and the proceeds from term loans.

We expect to devote substantial capital resources to continue our research and development activities, expand our sales, marketing and customer service and support organizations, support our information systems requirements and for other general corporate activities. We have authorized for issuance under our articles of incorporation an aggregate of 1,500,000 shares of our series E preferred stock and have issued 270,756 shares. We believe that our current cash balances will be sufficient to fund our operations, including interest payments on our convertible subordinated notes, for at least the next 12 months. However, if we do not complete the merger with CIENA we will need to raise substantial additional capital to achieve our long-term business plans. To the extent we raise additional capital through the sale of equity or securities convertible into equity, the issuance of such securities could result in dilution to the holders of our common stock and holders of securities convertible into common stock.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Fluctuations. We do not have any foreign currency denominated assets or liabilities or purchase commitments and have not entered into any foreign currency contracts. Accordingly, we are not exposed to fluctuations in foreign currency exchange rates.

Interest Rate Sensitivity. We maintain investment portfolio holdings of various issuers, types, and maturity dates with various banks and investment banking institutions. The market value of these investments on any given day during the investment term may vary as a result of market interest rate fluctuations. This exposure is not hedged because a hypothetical 10% movement in interest rates during the investment term would not likely have a material impact on investment income. The actual impact on investment income in the future may differ materially from this analysis, depending on actual balances and changes in the timing and the amount of interest rate movements. Short-term investments are classified as "available-for-sale" securities and the cost of securities sold is based on the specific identification method. At December 31, 2000, short-term investments consisted of corporate and municipal bonds. At December 31, 2000, there were no significant differences between the fair market value and the underlying cost of such investments. Our convertible subordinated notes bear interest at a fixed rate. Accordingly, a hypothetical 10% movement in interest rates would not have an impact on our interest expense or cash flows.

84

CHANGE IN INDEPENDENT AUDITORS

In July 2000, Cyras's board of directors retained Deloitte & Touche LLP as its independent auditors and replaced its former auditors, KPMG LLP. The decision to change independent auditors was approved by resolution of the board. The former independent auditors' report on Cyras's financial statements as of and for the years ended December 31, 1999 and 1998 did not contain an adverse opinion, a disclaimer of opinion or any qualifications or modifications related to uncertainty, limitation of audit scope or application of accounting principles. There were no disagreements with the former independent auditors on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure with respect to Cyras's financial statements up through the time of replacement that, if not resolved to the former independent auditors' satisfaction, would have caused them to make reference to the subject matter of the disagreement in connection with their report. Prior to retaining Deloitte & Touche, Cyras had not consulted with Deloitte & Touche regarding accounting principles.

CYRAS'S CHIEF EXECUTIVE OFFICER

ALNOOR SHIVJI, 44, a co-founder of Cyras, has served as President, Chief Executive Officer and a Director of Cyras since July 2000. Prior to co-founding Cyras, Mr. Shivji co-founded Fiberlane Communications (Cerent) in November 1996, where he served as President until April 1998. From September 1995 to October 1996, Mr. Shivji served as Program Manager at MPR Teltech. Mr. Shivji holds a B.S. in computer sciences from the University of British Columbia.

EXECUTIVE COMPENSATION

The following table sets forth the total compensation received in the fiscal year ended December 31, 2000 by Cyras's Chief Executive Officer.

SUMMARY COMPENSATION TABLE

ALL OTHER COMPENSATION

NAME AND PRINCIPAL POSITION	YEAR	ANNUAL COMPENSATION SALARY	BONUS	SECURITIES UNDERLYING OPTIONS (#)	OTHER COMPENSATI ($)
Alnoor Shivji President, Chief Executive Officer and Director.....	2000	$228,313	$0	1,665,000	--

OPTION GRANTS IN FISCAL YEAR 2000

The following table sets forth information with respect to stock options granted to the Chief Executive Officer of Cyras, including the potential realizable value over the term of the options, based on assumed rates of stock appreciation of 5% and 10%, compounded annually. No stock appreciation rights were granted during 2000.

	INDIVIDUAL GRANTS				POTENTIAL REALIZ ASSUMED ANNUAL R PRICE APPR FOR OPTIO
NAME	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED	PERCENT OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN FISCAL 2000	EXERCISE PRICE	EXPIRATION DATE	5%
Alnoor Shivji.....	300,000(1)	0.8%	$ 0.275	2/1/10	$ 51,883
	1,365,000(1)	3.7%	$ 0.667	7/5/10	$572,580

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(1) Options are subject to a right of repurchase of Cyras which lapses as to 1/48th of the option shares each month after the date of grant.

In 2000, Cyras granted options to purchase up to an aggregate of 37,351,700 shares to employees, directors and consultants under its 1998 Stock Plan at exercise prices equal to the fair market value of Cyras common stock on the date of grant, as determined in good faith by Cyras's board of directors. Options granted are immediately exercisable in full, but any shares purchased under these options that are not vested are subject to Cyras's right to repurchase the shares at the option exercise price. In general, this repurchase right lapses as to these shares as the options would have vested, in equal monthly installments over an additional three-year period.

The potential realizable value is calculated assuming the aggregate exercise price on the date of grant appreciates at the indicated rate for the entire term of the option and that the option is exercised and sold on the last day of its term at the appreciated price. Stock price appreciation of 5% and 10% is assumed pursuant to the rules of the Securities and Exchange Commission. We can give no assurance that the actual stock price will appreciate over the term of the options at the assumed 5% and 10% levels or at any other defined level. Actual gains, if any, on stock option exercises will be dependent on the future performance of Cyras common stock. Unless the market price of the common stock appreciates over the option term, no value will be realized from the option grants made to the named executive officers.

AGGREGATED OPTION EXERCISES IN LAST FISCAL YEAR AND YEAR-END OPTION VALUES

The following table sets forth information concerning option exercises and option holdings during 2000 with respect to the Chief Executive Officer of Cyras. No options or stock appreciation rights were exercised during 2000. The value of unexercised in-the-money options at December 31, 2000 is calculated based on the fair market value of the option shares on December 31, 2000, which was $9.50 per share, as determined by the board, less the aggregate exercise price of the options.

NAME	NUMBER OF SHARES ACQUIRED ON EXERCISE	VALUE REALIZED
Alnoor Shivji(1).....	300,000	$ 82,500
	1,365,000	$910,000

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(1) Options are subject to a right of repurchase of Cyras which lapses as to 1/48th of the option shares each month after the date of grant.

CERTAIN TRANSACTIONS

Since July 1998, Cyras has been a party to the following transactions with its Chief Executive Officer, Alnoor Shivji, in which the amount involved exceeded $60,000 and in which he had a direct or indirect material interest:

Since its inception in July 1998, Cyras has issued and sold 52,302 shares of series C preferred stock and 13,008 shares of series D preferred stock to persons or entities affiliated with Mr. Shivji. The purchase prices for the series C preferred stock and series D preferred stock was $0.61 and $2.70, respectively.

In addition, Mr. Shivji exercised options to purchase 1,365,000 shares of common stock for $0.67 per share in July 2000 and 300,000 shares of common stock for an exercise price of $0.28 per share in March 2000.

Since inception, Mr. Shivji has purchased an aggregate of 7,485,600 shares of Cyras common stock for aggregate consideration of $1,019,740. Of this consideration, $972,500 was paid by Mr. Shivji in the form of promissory notes at 7% interest payable five years after the date of the notes. The notes are full recourse and are secured by the stock purchased in consideration for the notes.

STOCK OWNERSHIP OF MANAGEMENT, DIRECTORS AND MORE THAN FIVE PERCENT STOCKHOLDERS OF CIENA

BENEFICIAL OWNERSHIP OF COMMON STOCK

The following table sets forth certain information as of October 31, 2000, unless otherwise specified, with respect to the beneficial ownership of CIENA's common stock by each person who is known to CIENA to have beneficial ownership of more than 5% of the outstanding shares of common stock, each director, each named executive officer (as defined below), and all directors and executive officers of CIENA as a group.

NAME OF BENEFICIAL OWNER	AMOUNT AND NATURE OF BENEFICIAL OWNERSHIP(1)	PERCENT O
Patrick H. Nettles, Ph.D.(2)(3)	6,905,967	2.4
Gary B. Smith(2)	389,195	
Joseph R. Chinnici(2)	355,200	
Steve W. Chaddick(2)	933,625	
Mark Cummings(2)	235,167	
Stephen P. Bradley, Ph.D.(2)	100,000	
Harvey B. Cash(2)(4)	485,410	
John R. Dillon(2)	20,200	
Gerald H. Taylor(2)	0	
Judith M. O'Brien	8,166	
Lawton W. Fitt(5)	0	
All officers and directors as a group (20 persons)(2)	10,451,497	3.6

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* Represents less than 1%.

(1) The persons named in this table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws where applicable and except as indicated in the other footnotes to this table. Beneficial ownership is determined in accordance with the rules of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days after October 31, 2000 are deemed outstanding. Such shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other person.

(2) Includes shares issuable upon exercise of stock options granted under the Amended and Restated 1994 Stock Option Plan (the "1994 Plan") or the 1996 Outside Directors Stock Option Plan. Options granted under the 1994 Plan that are reflected in the beneficial ownership table are generally exercisable immediately but may be subject to a right of repurchase based on a scheduled vesting period. Generally, shares underlying options vest over four years and options must be exercised within ten years. Initial grants of options under the Directors Plan vest over a period of three years, annual grants vest in full on the first anniversary date of the grant and options must be exercised within ten years of the date of grant.

(3) Does not include 350,000 shares held by the Patrick H. and Marion S. Nettles Charitable Trust and 350,000 shares held by The Patrick and Selma Nettles Charitable Remainder Unitary Trust FBO Caltech. Dr. Nettles disclaims beneficial ownership of the shares held by each of these trusts.

(4) Includes 441,486 shares of Common Stock owned by InterWest Partners VI, L.P., which Mr. Cash may be deemed to beneficially own by virtue of his status as a Managing Director of InterWest Management Partners VI, LLC, which is the general partner of InterWest Partners VI, L.P., and 13,924 shares owned by InterWest Investors VI, L.P., which Mr. Cash may be deemed to beneficially own by virtue of his status as a Managing Director of InterWest Management Partners VI, LLC, which is the general partner of InterWest Investors VI, L.P. Mr. Cash disclaims beneficial ownership of the shares held by such entities except to the extent of his proportionate partnership interest therein. Mr. Cash has direct ownership of 172,500

shares of Common Stock, including 145,000 shares owned by the Harvey B. Cash self-directed IRA and 2,572 shares owned by InterWest Management Profit Sharing Retirement Plan FBO Harvey B. Cash.

(5) Ms. Fitt joined the board on November 2, 2000. She received a grant of 30,000 options upon joining the board.

87

SECURITY OWNERSHIP OF DIRECTORS, EXECUTIVE OFFICERS AND MORE THAN FIVE PERCENT STOCKHOLDERS OF CYRAS

The following table sets forth, as of January 31, 2001, the security ownership of the directors, executive officers and principal stockholders of Cyras. Unless otherwise indicated, each person's address is in care of Cyras, 47100 Bayside Parkway, Fremont, California 94538. To the knowledge of Cyras, the persons named in the table have sole voting and investment power with respect to all shares of Cyras stock shown as beneficially owned by them, subject to the information contained in the footnotes to the table. Beneficial ownership is determined in accordance with the rules of the SEC. Shares of Cyras common stock subject to options currently exercisable or exercisable within sixty days from the date of this table are deemed outstanding when determining the number of shares and percentage ownership by the person holding such options.

	BENEFICIAL OWNERSHIP OF CAPITAL STOCK			
BENEFICIAL OWNER	COMMON STOCK	PREFERRED STOCK(1)	TOTAL SHARES	PERCE
Entities affiliated with Menlo Ventures(2).....	--	45,201,126	45,201,126	22.6%
Entities affiliated with New Enterprise Associates(3).....	--	19,469,286	19,469,286	9.7
Entities affiliated with Draper Fisher Jurvetson(4).....	--	15,080,808	15,080,808	7.5
Entities affiliated with Worldview Ventures(5)...	--	11,549,520	11,549,520	5.8
Entities affiliated with El Dorado Ventures(6)...	--	11,373,648	11,373,648	5.7
Stephen Pearse(7).....	6,868,749	31,104	6,899,853	3.5
Alnoor Shivji(8).....	7,485,600	13,296	7,498,896	3.8
Rafat Pirzada(9).....	7,396,134	20,724	7,416,858	3.7
Shekhar Mandal(10).....	7,485,600	164,484	7,650,084	3.8
Sunil Tomar(11).....	7,460,609	258,342	7,718,951	3.9
Diosdado Banatao(12).....	4,320,000	9,933,726	14,253,726	7.1
Douglas Carlisle(2).....	--	45,201,126	45,201,126	22.6
All directors and executive officers as a group (9 people).....	36,648,543	55,616,994	92,265,537	46.1

Unless otherwise noted, each person or group identified possesses sole voting and investment power with respect to such shares, subject to community property laws where applicable. Shares not outstanding but deemed beneficially owned by virtue of the right of a person or member of a group to acquire them within 60 days are treated as outstanding only when determining the amount and percent owned by such person or group. Each shareholder's percentage of ownership in the following table is based on 200,051,761 shares of stock outstanding as of January 31, 2001, assuming the conversion of all of our outstanding shares of preferred stock into one share of common stock. Unless otherwise indicated, the principal address of each of the shareholders below is

c/o Cyras Systems, Inc., 47100 Bayview, Fremont, California 94538.

(1) Cyras has issued shares of series A, series B, series C, series D and series E preferred stock.

(2) Principal address is 3000 Sand Hill Road, Suite 100, Building 4, Menlo Park, California 94025. Includes 31,999,998 shares of series B preferred stock, 10,982,862 shares of series C preferred stock and 396,336 shares of series D preferred stock held by Menlo Ventures VII, L.P.; and 1,344,000 shares of series B preferred stock, 461,280 shares of series C preferred stock and 16,650 shares of series D preferred stock held by Menlo Entrepreneurs Fund VII, L.P. Mr. Carlisle, a director of Cyras, is a general partner of Menlo Ventures VII, L.P. and as such, he may be deemed to share voting and investment power with respect to such shares. However, Mr. Carlisle disclaims beneficial ownership of all such shares.

(3) Principal address is 2490 Sand Hill Road, Menlo Park, California 94025. Includes 19,119,900 shares of series C preferred stock and 177,732 shares of series D preferred Stock held by New Enterprise Associates VIII L.P.; 163,482 shares of series C preferred stock held by NEA Presidents Fund, L.P.; and 8,172 shares of series C preferred stock held by NEA Ventures 1999 L.P.

(4) Principal address is 400 Seaport Court, Suite 250, Redwood City, California, 94063. Includes 11,100,000 shares of series B preferred stock, 2,722,068 shares of series C preferred stock and 127,674 shares of series D preferred stock held by Draper Fisher Jurvetson Fund V, L.P.; and 900,000 shares of series B preferred stock, 220,710 shares of series C preferred stock and 10,356 shares of series D preferred stock held by Draper Fisher Jurvetson Partners V, LLC.

(5) Principal address is 435 Tasso Street, Suite 120, Palo Alto, California 94301. Includes 8,486,124 shares of series C preferred stock and 78,138 shares of series D preferred stock held by Worldview Technology Partners II, L.P.; 2,597,790 shares of series C preferred stock and 23,922 shares of series D preferred stock held by Worldview Technology International II, L.P.; and 360,228 shares of series C preferred stock and 3,318 shares of series D preferred stock held by Worldview Strategic Partners II, L.P.

(6) Principal address is 2400 Sand Hill Road, Suite 100, Menlo Park, California 94025. Includes 7,431,312 shares of series B preferred stock, 3,017,874 shares of series C preferred stock and 96,096 shares of series D preferred stock held by El Dorado Ventures IV, L.P.; and 568,686 shares of series B preferred stock, 251,880 shares of series C preferred stock and 7,800 shares of series D preferred stock held by El Dorado Technology '98, L.P.

(7) Until September 1, 2000, Mr. Pearse served as Cyras's Chief Executive Officer. Includes 1,800,000 shares of common stock held in trusts for the benefit of Mr. Pearse and his wife, of which Mr. Pearse or his wife are trustees; and 3,270 shares of series C preferred stock and 27,834 shares of series D preferred stock held by Mr. Pearse.

(8) Includes 520,000 shares of common stock held in trust for the benefit of Mr. Shivji and his wife; 303,333 shares of common stock and 8,172 shares of series C preferred stock held for the benefit of Mr. Shivji's minor children; and 3,270 shares of series C preferred stock held by Mr. Shivji's wife. The unvested shares are subject to repurchase by Cyras at the original purchase price upon Mr. Shivji's termination of service until such shares are vested.

(9) Includes 3,270 shares of series C preferred stock and 9,282 shares of series D preferred stock held by Mr. Pirzada; and 620,000 shares of common stock held in trust for the benefit of, and 8,172 shares of series C preferred stock held by Mr. Pirzada's wife. The unvested shares are subject to repurchase by Cyras at the original purchase price upon Mr. Pirzada's termination of service until such shares are vested.

(10) Includes 200,000 shares of common stock held in trust for the benefit of Mr. Mandal and his wife; 306,666 shares of common stock and 16,344 shares of series C preferred stock held in trusts for the benefit of Mr. Mandal's children; and 120,000 shares of series A preferred stock, 11,442 shares of series C preferred stock and 16,698 shares of series D preferred stock held by Mr. Mandal's wife. The unvested shares are subject to repurchase by Cyras at the original purchase price upon Mr. Mandal's termination of service until such shares are vested.

(11) Includes 200,000 shares of common stock held in trust for the benefit of Mr. Tomar and his wife; 240,000 shares of series A preferred stock, 10,992 shares of series C preferred stock and 7,350 shares of series D preferred stock held by Mr. Tomar; and 311,108 shares of common stock held in trust for the benefit of Mr. Tomar's minor children. The unvested shares are subject to repurchase by Cyras at the original purchase price upon Mr. Tomar's termination of service until such shares are vested.

(12) Represents 4,320,000 shares of common stock and 1,200,000 shares of series A preferred stock held by Mr. Banatao; 4,204,002 shares of series B preferred stock, 326,976 shares of series C preferred stock and 49,164 shares of series D preferred stock held in trusts for the benefit of Mr. Banatao and his wife; and 3,795,996 shares of series B preferred stock, 326,976 shares of series C preferred stock and 30,612 shares of series D preferred stock held by Tallwood Partners, L.P., of which Mr. Banatao is a general partner.

COMPARISON OF STOCKHOLDER RIGHTS

GENERAL

Both Cyras and CIENA are corporations organized under the laws of the State of Delaware and are therefore subject to the Delaware corporation statute. However, there are some differences in the charters and bylaws of Cyras and CIENA that affect the rights of their respective stockholders.

CAPITALIZATION

CIENA. CIENA is authorized to issue 460,000,000 shares of common stock and 20,000,000 shares of preferred stock. On February 23, 2001, 299,242,368 shares of CIENA common stock were outstanding and no shares of CIENA preferred stock were outstanding. 300,000 shares of Junior Participating Series A Preferred Stock were authorized but not outstanding pursuant to CIENA's Rights Agreement with BankBoston. CIENA's board has the authority, without stockholder approval, to issue shares of preferred stock from time to time in one or more series and to fix the rights and preferences, including voting rights, of each such series of preferred stock, which rights and preferences may be superior to that of CIENA's common stock.

CYRAS. Cyras is authorized to issue 847,300,000 shares of common stock,

7,200,000 shares of series A preferred stock, 73,800,000 shares of series B preferred stock, 57,000,000 shares of series C preferred stock, 13,200,000 shares of series D preferred stock, and 1,500,000 shares of series E preferred stock. As of January 31, 2001, Cyras had issued and outstanding 62,195,944 shares of common stock, 7,200,000 shares of series A preferred stock, 70,143,996 shares of series B preferred stock, 52,646,118 shares of series C preferred stock, 7,594,947 shares of series D preferred stock, and 270,756 shares of series E preferred stock.

As of the record date, there were outstanding warrants to purchase 3,600,000 shares of series B preferred stock, 50,896 shares of series E preferred stock and 20,000 shares of common stock. Cyras has reserved 3,650,896 shares of preferred stock and 20,000 shares of common stock for issuance upon the exercise of these warrants. In addition, options to purchase 14,415,942 shares of common stock were outstanding under Cyras's 1998 Stock Plan. There are an additional 10,388,114 common stock purchase options available for future grant under the Plan.

VOTING RIGHTS

CIENA. Each holder of CIENA common stock is entitled to one vote for each share and may not cumulate votes for the election of directors.

CYRAS. Subject to the voting rights of the holders of the preferred stock, the holders of common stock vote as a class with the holders of the preferred stock and are entitled to one vote for each share held of record upon such matters and in such manner as may be provided by law.

The preferred stock votes together with the common stock and not as a separate class, except as specifically required by law or by the articles of incorporation which exceptions are set forth below. Each share of preferred stock has the number of votes equal to the number of shares of common stock then issuable upon conversion of such share of preferred stock.

Board of Directors. Pursuant to a voting agreement between some holders of Cyras preferred stock and common stock, until the closing of an underwritten public offering of Cyras common stock with aggregate proceeds to the company of not less than $20 million:

- Menlo Ventures Representative. Menlo Ventures, a holder of Cyras's series B, series C and series D preferred stock, is entitled to designate one member and to remove the member and fill any vacancy caused by the resignation, death or removal of the member. Douglas Carlisle currently serves as the Menlo Ventures representative.

- Common Stock Representatives. Holders of Cyras common stock are entitled to designate two members and to remove these members and fill any vacancy caused by resignation, death or removal of these members.

- Preferred Stock Representative. Holders of outstanding Cyras preferred stock acting together are entitled to designate one member and to remove the member and fill any vacancy caused by resignation, death or removal of the member.

- At Large Representatives. Holders of Cyras outstanding common stock and preferred stock acting together are entitled to designate two at large members, one of which must be acceptable to New Enterprise Associates, a holder of Cyras's series C and series D preferred stock, and to remove these members and fill any vacancy caused by resignation, death or

removal of these members.

Protective Provisions. For so long as any Cyras preferred stock remains outstanding, the consent of the holders of a majority of the preferred stock, voting together as a single class, is necessary to take any of the following actions:

- amend or repeal any provision of Cyras's articles of incorporation in any manner that would materially and adversely change any of the rights, preferences, privileges, powers or restrictions of the preferred stock;

- authorize or issue any securities having any preference or priority as to dividends or assets superior to or on a parity with any such preference or priority of Cyras preferred stock;

- reclassify any common stock or other securities other than preferred stock into shares having a preference or priority as to dividends or assets superior to or on a parity with any such preference or priority of the preferred stock; or

- reduce the authorized number of members of Cyras's board of directors below five members.

NUMBER AND CLASSIFICATION OF DIRECTORS

CIENA. CIENA's charter provides that its board of directors will be comprised of three classes of two or more directors each, with each class elected for a term of three years, so that a different class of directors stands for election each year. CIENA's bylaws provide that the number of directors may be set by the board of directors.

CYRAS. Cyras's charter provides that the affirmative vote of the holders of a majority of its preferred stock is required in order to reduce the authorized number of directors to fewer than five. Cyras's bylaws provide that the number of directors may not be less than four nor more than seven. Cyras's bylaws provide for a single class of directors who are elected at the annual meeting of stockholders and hold office until their successors are elected and qualified.

REMOVAL OF DIRECTORS

CIENA. CIENA's charter provides that a director may only be removed from office by the affirmative vote of a majority of the shares of capital stock of CIENA outstanding and entitled to vote on the election of directors. CIENA's bylaws provide that a director may only be removed from office by the stockholders at a special meeting called for that purpose.

CYRAS. Cyras's charter and voting agreement provide that the holder of a majority of the shares entitled to elect a director may remove that director. Cyras's charter and bylaws provide that a director may be removed from office, with or without cause, by the affirmative vote of a majority of the shares of capital stock of Cyras outstanding and entitled to vote at an election of directors for such director.

FILLING VACANCIES ON THE BOARD OF DIRECTORS

CIENA. CIENA's charter provides that, subject to the rights of any then-existing series of preferred stock, if a vacancy occurs on the CIENA board, other than a vacancy resulting from the removal of a

director by the stockholders but including a vacancy resulting from an increase in the size of the board, the vacancy may be filled only by a majority vote of the directors then in office, even if they constitute less than a quorum. However, if a vacancy results from the removal of a director by the stockholders at a meeting called for that purpose, then the stockholders may fill the vacancy at that meeting.

CYRAS. Cyras's charter provides that any vacancy on the board of directors may be filled by a majority of the shares entitled to elect a director to the vacant seat. Cyras's bylaws provide that vacancies may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director. The directors so chosen serve until the next annual election and until their successors are duly elected and qualify, unless sooner replaced in accordance with the charter.

CHARTER AMENDMENTS

CIENA. CIENA's charter provides that the affirmative vote of the holders of at least 66 2/3% of the voting power of all outstanding shares of the capital stock of CIENA entitled to vote on the election of directors is required to amend certain provisions of CIENA's charter relating to the board of directors, stockholder action, amendment of the charter and indemnification of officers and directors of CIENA. Otherwise, the charter may be amended by the holders of a majority of the voting power of all outstanding shares of CIENA stock.

CYRAS. Cyras's charter may be amended in any manner provided for by law, except that it can not, without the vote of at least a majority of the preferred stock, be amended or appealed in any manner which would materially and adversely alter the rights, preferences, privileges or powers of the preferred stock. Delaware law provides that the charter may be amended with the affirmative vote of at least a majority of the voting power of all outstanding shares of the capital stock of Cyras entitled to vote on the election of directors.

AMENDMENTS TO BYLAWS

CIENA. CIENA's charter provides that the affirmative vote of the holders of at least 66 2/3% of the voting power of all outstanding shares of the capital stock of CIENA entitled to vote on the election of directors is required to amend CIENA's bylaws.

CYRAS. Cyras's bylaws provide that they may be amended by the board of directors or the holders of a majority of the outstanding voting shares at any regular meeting of the stockholders or of the board of directors or at any special meeting of the stockholders or the board of directors if notice of such amendment be contained in the notice of such special meeting.

ACTION BY WRITTEN CONSENT

CIENA. CIENA's charter provides that any action by the stockholders may only be taken at an annual or special meeting and may not be taken by written consent.

CYRAS. Cyras's bylaws provide that any action that must or may be required to be taken by stockholders may be taken by written consent.

NOTICE OF STOCKHOLDER ACTIONS

CIENA. Neither CIENA's charter nor its bylaws require advance notice of stockholder nominations of directors or any other business to be brought by stockholders before any meeting of stockholders.

CYRAS. Cyras's bylaws require advance notice of business to be brought by

stockholders before any special meeting of stockholders.

RIGHT TO CALL SPECIAL MEETING OF STOCKHOLDERS

CIENA. CIENA's bylaws provide that a special meeting of stockholders may be called at any time by the board of directors or the president and must be called by the president or the secretary at the

request of the holders of at least 25% of the number of shares of stock outstanding and entitled to vote at such meeting.

CYRAS. Cyras's bylaws provide that a special meeting of stockholders may be called at any time by the board of directors or the president at the request in writing of a majority of the board of directors or holders of a majority of the total voting power of all outstanding shares of stock then entitled to vote.

DIVIDENDS

CIENA. CIENA's bylaws provide that, from time to time, CIENA's board may declare and pay dividends upon shares of CIENA stock, but only out of funds available for the payment of dividends as provided by law.

CYRAS. The holders of the series A preferred stock, series B preferred stock, series C preferred stock, series D preferred stock and series E preferred stock are entitled to receive on a pari passu basis, noncumulative dividends in preference to any dividend on the common stock at the rate of 8% of $0.042, $0.125, $0.612, $2.695 and $18.467, respectively, the original purchase price for each share of such series, per year, when, as and if declared by the board of directors. If, after such preferential dividends have been paid, the board of directors declares additional dividends out of available funds in the calendar year, then the additional dividends will be paid pro rata to all holders of common stock.

LIQUIDATION RIGHTS

CIENA. CIENA's charter provides that, in the event of a liquidation of CIENA, the holders of CIENA common stock shall receive all remaining assets of CIENA ratably in proportion to the number of shares of common stock held by them.

CYRAS. If Cyras liquidates, dissolves or winds up, after payment of the liabilities the holders of the series A preferred stock, series B preferred stock, series C preferred stock, the series D preferred stock and series E preferred stock shall be entitled to receive in preference to the holders of the common stock, a per share amount equal to the original purchase prices plus any declared but unpaid dividends. If the assets are insufficient to pay such amounts the assets shall be distributed to such holders ratably. Following distributions of these preferential amounts to the holders of the preferred stock, the remaining assets shall be distributed ratably to the holders of the common stock then outstanding. Any of the following events will be deemed a liquidation, dissolution or winding up:

- Cyras's consolidation or merger with or into any other corporation, or a merger of any other corporation into us, unless its shareholders immediately following such transaction, own greater than 50% of the surviving corporation's voting power, or

- a sale of all or substantially all of the assets of Cyras.

CONVERSION AND REDEMPTION

CIENA. Holders of CIENA common stock have no right to convert their shares into any other shares of the capital stock of CIENA or any other securities.

CYRAS. Holders of Cyras preferred stock have the right at any time to convert one share of preferred stock into one share of common stock, although that conversion rate is subject to adjustment as described below. The Cyras preferred stock will automatically convert into common stock, at the then effective applicable conversion rate, upon the earliest to occur of the closing of a firm commitment underwritten public offering of Cyras common stock of not less than $20 million, before deduction of underwriters' commissions and offering expenses, or the election of the holders of more than 66.7% of the outstanding shares of preferred stock, voting together as a single class.

Each share of Cyras preferred stock is initially convertible into one share of common stock. The number of shares of common stock into which such preferred stock is convertible will be subject to adjustment in the following circumstances:

- any subdivision, combination or consolidation of the outstanding shares of common stock;
- any distribution by us of a dividend or other distribution payable in securities other than shares of common stock;
- any adjustment of the common stock issuable upon the conversion of the preferred stock, whether by reorganization, reclassification or otherwise; or
- any capital reorganization, other than an acquisition or asset transfer, of the common stock.

In addition, in the event that Cyras issues additional equity securities, other than shares to its officers, directors, employees and consultants, shares of common stock issued upon conversion of the preferred stock, shares issued pursuant to the exercise of options, warrants or convertible securities, shares issued pursuant to an equipment lease or other financing transaction for other than primarily equity capital raising, shares issued as a dividend or distribution on the series B, series C, series D or series E preferred stock and other customary exceptions, for a purchase price less than the respective conversion rate for a series of preferred stock, excluding the series A preferred stock, initially set at $0.125, $0.612, $2.695 and $18.467 per share for series B preferred stock, series C preferred stock, series D preferred stock and series E preferred stock, respectively, the conversion rate of each series of preferred stock is subject to broad-based weighted average adjustment, based on all outstanding shares of common stock, preferred stock and convertible and/or exercisable securities.

Further, in the event of a public offering of Cyras's common stock of not less than $20 million, before deduction of underwriters' commissions and offering expenses, is consummated, the initial series E conversion price shall be the lesser of $18.467 or 90% of the price for which each share of common stock is offered and sold in such public offering.

REGISTRATION RIGHTS

CIENA. The common stock of CIENA is, and the shares to be issued in the

merger will be, registered under the Securities Act of 1933.

CYRAS. Set forth below is a summary of the registration rights of certain holders of common stock and the holders of the preferred stock pursuant to Cyras's Fourth Amended and Restated Registration Rights Agreement entered into among Cyras and many of its stockholders, including all holders of preferred stock. As a condition to the merger, this agreement must be terminated at the effective time of the merger. The term "registrable securities," as used below, means Cyras common stock issued or issuable upon conversion of the preferred stock and upon exercise of outstanding warrants to purchase preferred stock and common stock held by Cyras's founders. Registrable securities does not include any securities sold by a person in a transaction in which the registration rights are not assigned, sold to the public or sold pursuant to Rule 144 under the Securities Act.

Demand Registration Rights. If holders of at least 50% of the registrable securities, not including shares of common stock held by Cyras's founders, request in writing that it file a registration statement under the Securities Act covering at least 10% of the registrable securities, or a lesser percentage if the anticipated aggregate offering price exceeds $10 million, Cyras is obligated to use its best efforts to cause the requested shares to be registered. However, it is not obligated to effect any registration:

- prior to the earlier of six months after the effective date of its initial public offering and March 31, 2002;

- after effecting two demand registrations; or

- if such registration is not proposed to be part of a firm commitment public offering.

Cyras has the right to delay such registration for a period not in excess of 120 days once in any 12-month period if it furnishes a certificate signed by the President or Chief Executive Officer stating that, in the good faith judgement of the board of directors, it would be seriously detrimental to Cyras and its stockholders for such registration to be filed and that it is therefore essential to defer the filing.

Piggyback Registration Rights. The holders of registrable securities are also entitled to "piggyback" registration rights on all Cyras registrations, excluding its initial public offering, registrations relating to any employee benefit plan or corporate reorganization or a registration in which the only security being registered is common stock issuable upon conversion of convertible debt securities which are also being registered. If the registration is an underwritten offering, then the holder's participation shall be conditioned upon the party agreeing to participate in the underwriting by executing the underwriting agreement. If the underwriter of the registration determines that marketing factors require a limitation on the aggregate amount of securities sold on the market, the underwriter may cut back the parties other than Cyras on a pro rata basis. No cut-back can reduce the amount of securities of the selling parties, other than Cyras, included in the registration to below 25% of the total amount of securities included in the registration, unless the registration is with respect to Cyras's initial public offering from which all registrable securities may be excluded. The holders of these rights have waived all registration rights in connection with any registration statement covering the re-sale of the common stock issuable upon conversion of the notes.

Form S-3 Registration Rights. Holders of at least 10% of the outstanding registrable securities may also demand up to two registrations on Form S-3

provided Form S-3 is available for such offering and the aggregate proceeds are not less than $3,000,000. Cyras may delay such registration for a period not in excess of 120 days once in any 12-month period if it furnishes a certificate signed by its President or Chief Executive Officer stating that, in the good faith judgment of the board of directors, it would be seriously detrimental to Cyras and its stockholders for such registration to be filed and that it is therefore essential to defer the filing.

Indemnification. To the extent permitted by law, Cyras will indemnify the other parties to the agreement and certain related parties against any losses, claims, damages or liabilities, joint or several, to which they may become subject based on any untrue statement or alleged untrue statement of material fact contained in, or material fact omitted from, a registration statement covering registrable securities, or any other violation or alleged violation of any state or federal securities laws by us.

To the extent permitted by law, each investor holding registrable securities included in a registration that Cyras effected must indemnify Cyras, its officers, directors, legal counsel, control persons and underwriters and any other parties and certain related parties selling securities in such registration against any losses, claims, damages or liabilities, joint or several, to which they may become subject based on any of the violations enumerated above to the extent such violation occurs in reliance upon written information supplied by such investor for use in such registration.

Transferability. The aforementioned registration rights may be transferred to:

- any general partner, limited partner, affiliate, member or former member of a holder;

- any family member or trust for the benefit of any holder; or

- any transferee who acquires at least 500,000 shares of registrable securities issued to the original holder, provided such transfer is in accordance with the securities laws.

Expenses. Cyras is obligated to bear registration expenses, exclusive of underwriting discounts and commissions, of all of the above-described demand, piggy-back and S-3 registrations, including the expense of one special counsel of all of the selling stockholders.

Market Standoff. Each holder of registrable securities has agreed that it will not, upon the request of Cyras or its underwriter, sell, transfer or otherwise dispose of any common stock or other securities of Cyras, held by the holder, other than those included in the registration, for a period of up to 180 days following the effective date of a registration statement filed under the Securities Act relating to Cyras's

88

95

initial public offering, provided all of its officers and directors who hold stock or options to purchase or common stock are similarly bound.

Termination. The above registration rights terminate five years after the closing date of Cyras's initial public offering or, with respect to any holder, if such holder holds less than 1% of Cyras's outstanding capital stock and is able to sell all of such shares during any three-month period pursuant to Rule 144 of the Securities Act.

Amendment. Registration rights may be amended or waived solely with Cyras's consent and the consent of holders holding a majority of the registrable

securities then outstanding.

ADDITIONAL RIGHTS OF CYRAS STOCKHOLDERS

In connection with the merger, Cyras must terminate, effective upon the consummation of the merger, agreements providing the following rights:

Preemptive Rights. Holders of an aggregate of at least 500,000 shares of Cyras preferred stock, excluding shares of series A preferred stock, have the right in the event that Cyras proposes to offer securities to any person to purchase on a pro rata basis, on a fully diluted basis, all or any portion of such securities. These preemptive right do not apply to:

- any shares of Cyras common stock or options therefor, issued to Cyras employees, officers, directors or consultants pursuant to stock or option plans or other arrangements approved by the board of directors, including at least one designee of the preferred stock;

- any securities issuable upon conversion of or with respect to any then outstanding shares of Cyras preferred stock;

- shares of Cyras common stock or preferred stock issued in connection with any stock split, stock dividend or other recapitalization;

- securities offered by Cyras to the public pursuant to a registration statement filed under the Securities Act;

- securities issued in connection with equipment, bank, strategic or lease financing transactions at a per share price of at least $18.467 as approved by the board of directors;

- securities issued for non-cash consideration pursuant to the acquisition of another business by merger, purchase of assets, or other reorganization approved by the board of directors;

- shares of common stock or preferred stock issued in connection with an underwritten public offering;

- the issuance and sale of Cyras's 4 1/2% convertible subordinated notes due August 15, 2005; or

- the issuance and sale of Cyras series E preferred stock.

Rights of First Refusal and Co-Sale Rights. Holders of Cyras preferred stock, excluding series A preferred stock, have the right to purchase their pro rata portion of shares of common stock proposed to be sold by any of Cyras's founders to a third party. Any preferred stockholder choosing not to exercise this right of first refusal may sell to the third party purchaser, its pro rata portion of the shares proposed to be sold by the founder. These rights of first refusal and co-sale rights will expire on the earlier to occur of Cyras's first underwritten initial public offering or October 16, 2004. These rights will terminate upon the closing date of the merger.

Inspection and Information Rights. Each holder of Cyras preferred stock is entitled to the delivery of:

- annual financial statements within 90 days following the end of each fiscal year; and

- quarterly financial statements within 45 days following the end of each of the first three quarters of the year.

In addition, each holder of at least 1,500,000 shares of Cyras preferred stock is entitled to delivery of:

- monthly balance sheets and statements of income within 30 days following the end of each calendar month, except the last month of the fiscal year; and

- a summary of the financial plan and budget for the next fiscal year within 60 days of commencement of the fiscal year.

Each qualified stockholder is entitled to visit and inspect Cyras's properties, to examine its books of account and records and to discuss its affairs, all at such reasonable times as may be requested by the stockholder.

A representative of SGC Partners I LLC and a representative of New Enterprise Associates are entitled to attend all meetings of the board of directors in a non-voting, observer capacity and to receive notice of board of directors meetings and a copy of all materials provided to directors. However, Cyras has the right to withhold any information and to exclude the observer from any meeting or portion thereof if Cyras reasonably believes that access to the information or attendance at the meeting would involve the disclosure of highly confidential information or for similar reasons, as determined in good faith by the board of directors. Additionally, Cyras must meet with New Enterprise Associates regularly to consult with them on significant business issues.

The information, inspection and observer rights terminate upon the closing of the initial public offering of Cyras common stock or such time that Cyras is required to file reports under Section 13 or 15(d) of the Securities Exchange Act of 1934, the Exchange Act. The observer rights terminate upon the merger or consolidation with another business entity unless Cyras voting securities continue to represent a majority of the voting power of the combined entity after the merger or consolidation.

STOCKHOLDER RIGHTS PLAN

In December 1997, CIENA's board of directors adopted a Stockholders Rights Plan. This plan is designed to deter any potential coercive or unfair takeover tactics in the event of an unsolicited takeover attempt. It is not intended to prevent a takeover of CIENA on terms that are favorable and fair to all shareholders and will not interfere with a merger approved by the board of directors. Each right entitles shareholders to buy one one-thousandth of a share of junior preferred stock of CIENA for each share of CIENA common stock held by them. The rights will be exercisable only if a person or a group acquires or announces a tender or exchange offer to acquire 15% or more of CIENA's common stock or if CIENA enters into certain other business combination transactions not approved by the board of directors. In the event the rights become exercisable, the rights plan allows for CIENA shareholders to acquire stock of CIENA or the surviving corporation, whether or not CIENA is the surviving corporation, having a value twice that of the exercise price of the rights. The rights were distributed to shareholders of record in January 1998. The rights will expire December 2007 and are redeemable for $.001 per right at the approval of CIENA's board of directors. All of the CIENA shares to be issued to Cyras stockholders will be issued with rights attached.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the CIENA common stock is EquiServe.

OTHER MATTERS

LEGAL MATTERS

The validity of the CIENA common stock offered hereby and certain federal income tax consequences in connection with the merger will be passed upon by Hogan & Hartson L.L.P., outside legal counsel to CIENA.

The federal income tax consequences described in this prospectus and proxy statement are the subject of opinions issued by Hogan & Hartson L.L.P., outside legal counsel to CIENA, and Brobeck, Phleger & Harrison LLP, counsel to Cyras. Brobeck, Phleger & Harrison and certain of its partners and associates own in the aggregate 205,290 shares of Cyras capital stock. Under the terms of an engagement letter between Brobeck, Phleger & Harrison and Cyras, Brobeck, Phleger and Harrison is charging Cyras a fixed fee of $1,100,000 for its services in connection with the merger, $550,000 of which is contingent upon completion of the merger.

EXPERTS

The consolidated financial statements of CIENA Corporation as of October 31, 2000 and 1999 and for each of the three years in the period ended October 31, 2000 incorporated in this prospectus and proxy statement by reference to CIENA's Annual Report on Form 10-K for the year ended October 31, 2000, have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

The financial statements of Cyras as of December 31, 1999 and 2000 and for the period from July 24, 1998 (inception) to December 31, 1998, for the years ended December 31, 1999 and 2000 and for the period from July 24, 1998 (inception) to December 31, 2000, included in this prospectus and proxy statement have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report appearing herein, and have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

OTHER MATTERS

As of the date of this prospectus and proxy statement, the Cyras board knows of no matter that will be presented for consideration at the special meeting other than as described in this prospectus and proxy statement. If any other matters come before the special meeting or any adjournments or postponements thereof and are voted upon, the enclosed proxies will confer discretionary authority on the individuals named as proxies therein to vote the shares represented by such proxies as to any such matters. The individuals named as proxies intend to vote or not to vote in accordance with the recommendation of the management of Cyras.

WHERE YOU CAN FIND MORE INFORMATION

CIENA has filed the Registration Statement of which this prospectus and proxy statement is a part. The Registration Statement registers the distribution to Cyras stockholders of the shares of CIENA common stock to be issued in connection with the merger. The Registration Statement, including the attached exhibits and schedules, contain additional relevant information about CIENA common stock. The rules and regulations of the SEC allow us to omit certain information included in the Registration Statement from this prospectus and

proxy statement.

In addition, CIENA files reports, proxy statements and other information with the SEC under the Exchange Act. You may read and copy any of this information at the following locations of the SEC:

Public Reference Room	New York Regional Office	Chicago Regional Office
450 Fifth Street, N.W.	7 World Trade Center	Citicorp Center
Room 1024	Suite 1300	500 West Madison Street
Washington, D.C. 20549	New York, New York 10048	Suite 1400
		Chicago, Illinois 60661-2511

You may obtain information on the operation of the SEC's Public Reference Room by calling the SEC at 1-800-SEC-0330.

The SEC also maintains an Internet web site that contains reports, proxy statements and other information regarding issuers, like CIENA, that file electronically with the SEC. The address of that site is http://www.sec.gov. The SEC file number for our documents filed under the Exchange Act is 0-21969.

The SEC allows CIENA to "incorporate by reference" information into this prospectus and proxy statement. This means that CIENA can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this prospectus and proxy statement, except for any information that is superseded by information that is included directly in this document.

This prospectus and proxy statement incorporates by reference the documents listed below that CIENA has previously filed or will file with the SEC. They contain important information about CIENA and its financial condition.

- CIENA's Annual Report on Form 10-K for its fiscal year ended October 31, 2000, filed on December 7, 2000, as amended January 18, 2001;

- CIENA's Form 8-K filed on January 18, 2001;

- CIENA's Quarterly Report on Form 10-Q for its fiscal quarter ended January 31, 2001, filed on February 15, 2001;

- All documents filed with the SEC by CIENA pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus and proxy statement and prior to the date of the special meeting are incorporated by reference into this prospectus and proxy statement, effective the date such documents are filed; and

- The description of CIENA common stock set forth in the CIENA Registration Statement filed under Section 12 of the Exchange Act on Form 8-A on January 13, 1997, including any amendment or report filed with the SEC for the purpose of updating such description.

In the event of conflicting information in these documents, the information in the latest filed document should be considered correct.

You can obtain any of the documents incorporated by reference in this document through CIENA or from the SEC through the SEC's web site at the address described above. Documents incorporated by reference are available from CIENA

without charge, excluding any exhibits to those documents unless the exhibit is specifically incorporated by reference as an exhibit in this prospectus and proxy statement. You can obtain documents incorporated by reference in this prospectus and proxy statement by requesting them in writing or by telephone from CIENA at the following address:

CIENA Corporation
1201 Winterson Road
Linthicum, Maryland 21090
Attn: General Counsel
Telephone (410) 865-8500

You can also contact us at our website, www.ciena.com. If you would like to request documents, please do so by March 22, 2001 to receive them before the special meeting. If you request any

incorporated documents from CIENA, CIENA will mail them to you by first class mail, or another equally prompt means, within two business days after CIENA receives your request.

This document constitutes the prospectus of CIENA and the proxy statement of Cyras. CIENA has supplied all information contained or incorporated by reference in this prospectus and proxy statement relating to CIENA and Cyras has supplied all such information relating to Cyras.

Neither CIENA nor Cyras has authorized anyone to give any information or make any representation about the merger or CIENA or Cyras that is different from, or in addition to, that contained in this prospectus and proxy statement or in any of the materials that CIENA has incorporated into this document. Therefore, if anyone does give you information of this sort, you should not rely on it. The information contained in this document speaks only as of the date of this document unless the information specifically indicates that another date applies.

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

INDEX TO FINANCIAL STATEMENTS

	PAGE
Independent Auditors' Report	F-2
Balance Sheets	F-3
Statements of Operations and Other Comprehensive Income	F-4
Statements of Stockholders' Deficit	F-5
Statements of Cash Flows	F-6
Notes to Financial Statements	F-7

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Stockholders
Cyras Systems, Inc.:

We have audited the accompanying balance sheets of Cyras Systems, Inc. (the Company), a development stage company, as of December 31, 1999 and 2000, and the related statements of operations and other comprehensive income, stockholders' deficit, and cash flows for the period from July 24, 1998 (inception) to December 31, 1998, for the years ended December 31, 1999 and 2000 and for the period from July 24, 1998 (inception) to December 31, 2000. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 1999 and 2000, and the results of its operations and its cash flows for the period from July 24, 1998 (inception) to December 31, 1998, for the years ended December 31, 1999 and 2000 and for the period from July 24, 1998 (inception) to December 31, 2000, in conformity with accounting principles generally accepted in the United States of America.

DELOITTE & TOUCHE LLP

San Jose, California
February 12, 2001

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

BALANCE SHEETS
(IN THOUSANDS, EXCEPT SHARE AMOUNTS)

	DECEMBER 31,	
	1999	2000
ASSETS		
Current assets:		
Cash and cash equivalents	$42,663	$ 42,672
Short-term investments	5,003	102,848
Inventories, net	--	3,694
Prepaid expenses and other current assets	659	2,189

Total current assets	48,325	151,403
Property and equipment, net	2,667	7,412
Deferred debt issuance costs	--	7,750
Other assets	115	835
Total assets	$51,107	$167,400
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 2,410	$ 8,307
Accrued expenses	443	13,819
Current portion of capital lease obligation	677	910
Current portion of term loan	810	952
Total current liabilities	4,340	23,988
Convertible subordinated notes	--	156,393
Capital lease obligation, less current portion	1,238	988
Term loan, less current portion	1,596	644
Total liabilities	7,174	182,013
Commitments (Note 8)		
Convertible preferred stock:		
Series A, no par value; 7,200,000 shares authorized, issued and outstanding as of December 31, 1999 and 2000; aggregate liquidation preference of $300	300	300
Series B, no par value; 73,800,000 shares authorized; 70,143,996 shares issued and outstanding as of December 31, 1999 and 2000; aggregate liquidation preference of $8,768	9,011	9,011
Series C, no par value; 57,000,000 shares authorized; 52,646,118 shares issued and outstanding as of December 31, 1999 and 2000; aggregate liquidation preference of $32,202	32,169	32,169
Series D, no par value; 13,200,000 shares authorized; 5,381,436 and 7,594,947 shares issued and outstanding as of December 31, 1999 and 2000, respectively; aggregate liquidation preference of $14,503 and $20,468 as of December 31, 1999 and 2000, respectively	14,467	20,433
Series E, no par value; 1,500,000 shares authorized; 270,756 shares issued and outstanding as of December 31, 2000; aggregate liquidation preference of $5,000 as of December 31, 2000	--	5,399
Total convertible preferred stock	55,947	67,312
Stockholders' deficit:		
Common stock, $0.0001 par value, 847,300,000 shares authorized; 44,535,168 and 62,180,444 shares issued and outstanding as of December 31, 1999 and 2000, respectively	4	6
Additional paid-in capital	1,483	134,989
Deferred stock compensation	(949)	(86,809)
Notes receivable from stockholders	(99)	(8,970)
Accumulated other comprehensive income	--	230
Deficit accumulated during the development stage	(12,453)	(121,371)
Total stockholders' deficit	(12,014)	(81,925)
Total liabilities, convertible preferred stock and stockholders' deficit	$51,107	$167,400

See accompanying notes to financial statements.

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF OPERATIONS
AND OTHER COMPREHENSIVE INCOME

(IN THOUSANDS)

	PERIOD FROM JULY 24, 1998 (INCEPTION) TO DECEMBER 31, 1998	YEAR ENDED DECEMBER 31, 1999	YEAR ENDED DECEMBER 31, 2000	PER JULY (INC DEC
Operating expenses:				
Research and development (exclusive of non-cash compensation expense).....	$526	$ 9,345	$ 50,989	$
Sales and marketing (exclusive of non-cash compensation expense).....	78	493	8,515	
General and administrative (exclusive of non-cash compensation expense)....	190	2,265	9,420	
Amortization of deferred stock compensation*.....	--	59	34,989	
Total operating expenses.....	794	12,162	103,913	
Interest income.....	(69)	(899)	(5,743)	
Interest expense.....	--	463	4,354	
Interest expense -- accretion of redemption premium.....	--	--	6,393	
Loss before income tax expense.....	725	11,726	108,917	
Income tax expense.....	1	1	1	
Net loss.....	$726	$11,727	$108,918	$
Other comprehensive income:				
Unrealized gain on short-term investments.....	--	--	(230)	
Comprehensive loss.....	$726	$11,727	$108,688	$
*Amortization of deferred stock compensation:				
Research and development.....	$ --	$ 50	$ 17,212	$
Sales and marketing.....	--	2	9,798	
General and administrative.....	--	7	7,979	
	$ --	$ 59	$ 34,989	$

See accompanying notes to financial statements.

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF STOCKHOLDERS' DEFICIT
PERIOD FROM JULY 24, 1998 (INCEPTION) TO DECEMBER 31, 2000
(IN THOUSANDS, EXCEPT SHARE AMOUNTS)

	COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	DEFERRED STOCK COMPENSATION	NOTES RECEIVAB FROM STOCKHOLD
	SHARES	AMOUNT			
Issuance of restricted common stock to founders on inception of the Company	22,320,000	$2	$ 46	$ --	$ (19
Repurchase of common stock	(720,000)	--	(1)	--	--
Net loss	--	--	--	--	--
Balances as of December 31, 1998	21,600,000	2	45	--	(19
Issuance of common stock pursuant to exercise of stock options	24,717,048	2	454	--	(80
Repurchase of common stock	(1,781,880)	--	(24)	--	--
Deferred stock compensation	--	--	1,008	(1,008)	--
Amortization of deferred stock compensation	--	--	--	59	--
Net loss	--	--	--	--	--
Balances as of December 31, 1999	44,535,168	4	1,483	(949)	(99
Issuance of common stock pursuant to exercise of stock options	24,811,428	3	13,411	--	(9,596
Repurchase of common stock	(7,166,152)	(1)	(899)	--	725
Deferred stock compensation	--	--	120,849	(120,849)	--
Amortization of deferred stock compensation	--	--	--	34,989	--
Issuance of warrants for common stock	--	--	145	--	--
Other comprehensive income	--	--	--	--	--
Net loss	--	--	--	--	--
Balances as of December 31, 2000	62,180,444	$6	$134,989	$ (86,809)	$(8,970

	TOTAL STOCKHOLDERS' DEFICIT
Issuance of restricted common stock to founders on inception of the Company	$ 29
Repurchase of common stock	(1)
Net loss	(726)
Balances as of December 31, 1998	(698)

Issuance of common stock pursuant to exercise of stock options	376
Repurchase of common stock	(24)
Deferred stock compensation	--
Amortization of deferred stock compensation	59
Net loss	(11,727)
Balances as of December 31, 1999	(12,014)
Issuance of common stock pursuant to exercise of stock options	3,818
Repurchase of common stock	(175)
Deferred stock compensation	--
Amortization of deferred stock compensation	34,989
Issuance of warrants for common stock	145
Other comprehensive income	230
Net loss	(108,918)
Balances as of December 31, 2000	$ (81,925)

See accompanying notes to financial statements.

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF CASH FLOWS
(IN THOUSANDS)

	PERIOD FROM JULY 24, 1998 (INCEPTION) TO DECEMBER 31, 1998	YEAR ENDED DECEMBER 31, 1999	YEAR E DECEMBE 200
Cash flows from operating activities:			
Net loss	$ (726)	$(11,727)	$(108,
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	23	683	2,
Loss on disposal of property and equipment	--	48	
Provision for inventory valuation adjustment	--	--	4,
Accrued loss on purchase commitments	--	--	5,
Amortization of deferred stock compensation	--	59	34,
Non-cash warrant expense	--	--	
Amortization of deferred debt issuance costs	--	--	
Accretion of redemption premium (Note 6)	--	--	6,
Amortization of discounts on term loans	--	47	
Amortization of discounts on capital leases	--	47	
Changes in operating assets and liabilities:			
Inventory	--	--	(8,
Prepaid expenses and other current assets	(371)	(288)	(1,
Other assets	--	(115)	(

Accounts payable	411	1,999	5,
Accrued expenses	83	360	7,
Net cash used in operating activities	(580)	(8,887)	(50,
Cash flows from investing activities:			
Purchase of property and equipment	(626)	(578)	(6,
Proceeds from disposal of property and equipment	--	56	
Purchase of short-term investments	(3,976)	(1,027)	(97,
Net cash used in investing activities	(4,602)	(1,549)	(103,
Cash flows from financing activities:			
Proceeds from issuance of preferred stock Series A	300	--	
Proceeds from issuance of preferred stock Series B	8,731	--	
Proceeds from issuance of preferred stock Series C	--	32,169	
Proceeds from issuance of preferred stock Series D	--	14,467	5,
Proceeds from issuance of preferred stock Series E	--	--	4,
Issuance of common stock	29	376	3,
Repurchase of common stock	(1)	(24)	(
Proceeds from convertible subordinated notes	--	--	141,
Proceeds from term loans	--	3,000	
Repayment of term loans	--	(501)	(
Principal payments of capital leases	--	(265)	(
Net cash provided by financing activities	9,059	49,222	154,
Net increase in cash and cash equivalents	3,877	38,786	
Cash and cash equivalents at beginning of year/period	--	3,877	42,
Cash and cash equivalents at end of year/period	$ 3,877	$ 42,663	$ 42,
Supplemental disclosures of cash flow information:			
Cash paid during the year/period:			
Interest	$ --	$ 417	$
Income taxes	$ 1	$ 1	$
Noncash investing and financing activities:			
Equipment purchases under capital lease	$ --	$ 2,273	$
Deferred stock compensation	$ --	$ 1,008	$ 120,
Convertible preferred stock warrant issuance	$ --	$ 280	$
Issuance of common stock for stockholder notes receivable	$ 19	$ 80	$ 9,

See accompanying notes to financial statements.

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

(1) THE COMPANY

The Company designs, develops and markets next generation optical networking solutions for telecommunications carriers. The Company was incorporated on July 24, 1998, under the laws of the State of California and commenced operations on that date. In November 2000, the Company reincorporated in the State of Delaware. From July 24, 1998 through December 31, 2000, the Company was considered to be in the development stage, principally engaged in research and development, raising capital and building its management team.

On December 18, 2000, the Company entered into an agreement to merge with CIENA Corporation (CIENA) in a transaction to be accounted for as a purchase by CIENA, as the acquiror. If approved, the Company's stockholders, option holders and warrant holders will receive an aggregate total of approximately 27,565,000 shares of CIENA common stock and shares subject to options or warrants, as applicable, in the merger. If the merger is not consummated, the Company may be required to pay a termination fee of $80,000.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

The Company considers all highly liquid investments with a purchased maturity of 90 days or less to be cash equivalents.

The Company has adopted Statement of Financial Accounting Standards (SFAS) No. 115, Accounting for Certain Investments in Debt and Equity Securities. SFAS No. 115 requires entities to classify investments in debt and equity securities with readily determined fair values as "held-to-maturity," "available-for-sale," or "trading" and establishes accounting and reporting requirements for each classification. The Company has classified its investment securities as available-for-sale. Available-for-sale securities are carried at fair value, which approximates amortized cost for debt securities. Gains and losses on the sale of short-term investments are determined using the specific identification method.

(b) INVENTORIES

Inventories are stated at the lower of cost or market, with cost determined on the first-in, first-out basis. The Company records a provision for excess and obsolete inventory whenever such an impairment has been identified. Inventories as of December 31, 2000 consisted of raw materials.

(c) PROPERTY AND EQUIPMENT

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is calculated using the straight-line method over the estimated useful lives of the equipment, generally three years. Equipment recorded under capital leases and leasehold improvements are amortized using the straight-line method over the shorter of the respective lease term or the estimated useful life of the asset, generally one and a half years to three years.

(d) LONG-LIVED ASSETS

The Company evaluates its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS -- CONTINUED
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES -- CONTINUED

impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell.

(e) INCOME TAXES

The Company uses the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. A valuation allowance is recorded to reduce deferred tax assets to an amount whose realization is more likely than not. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the statement of operations in the period that includes the enactment date.

(f) STOCK-BASED COMPENSATION

The Company uses the intrinsic value-based method in accordance with Accounting Principles Board (APB) Opinion No. 25, Accounting for Stock Issued to Employees, to account for employee stock-based compensation. Accordingly, compensation cost is recorded on the date of grant to the extent the fair value of the underlying share of common stock exceeds the exercise price for a stock option or the purchase price for a share of common stock. The compensation cost is being amortized on an accelerated basis over the vesting period of the individual award consistent with the method described in Financial Accounting Standards Board (FASB) Interpretation No. 28. Pursuant to SFAS No. 123 Accounting for Stock-Based Compensation, the Company discloses the pro forma effect of using the fair value method of accounting for employee stock-based compensation arrangements.

Stock based awards granted to nonemployees are accounted for pursuant to the fair value method in SFAS No. 123 and Issue No. 96-18 of the Emerging Issues Task Force. The associated expense is recognized by the Company over the period the services are performed by the nonemployee.

(g) STOCK SPLIT

In February 2000, the Company's stockholders approved a two-for-one common and convertible preferred stock split effective March 16, 2000. In November 2000, the Company reincorporated in the State of Delaware. In connection with the reincorporation, the Company split its common and convertible preferred stock three-for-one. Accordingly, the accompanying financial statements have been adjusted to give effect to the reincorporation and the February 2000 and November 2000 stock splits.

(h) RESEARCH AND DEVELOPMENT COSTS

Development costs incurred in the research and development of new products and enhancements to existing products are expensed as incurred until the product has been completed, tested, and is ready for commercial manufacturing. Hardware

development projects are generally completed concurrent with the establishment of commercial manufacturing and, accordingly, to date no costs have been capitalized. Software development projects are generally completed concurrent with the establishment of technological feasibility in the form of a working model and, accordingly, to date no costs have been capitalized.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES -- CONTINUED

(i) FINANCIAL INSTRUMENTS AND CONCENTRATION OF CREDIT RISK

The carrying value of the Company's financial instruments, consisting of cash and cash equivalents, short-term investments and long-term debt approximates fair market value. Financial instruments that potentially subject the Company to a concentration of credit risk consist of cash and cash equivalents and short-term investments. The Company maintains the management of the majority of its cash and cash equivalents and short-term investments with three financial institutions. Investment of the funds by these institutions is governed by the Company's corporate investment policy, which aims to reduce credit risk by restricting investment to readily convertible high-grade U.S. dollar denominated investments and spreading it amongst a number of institutions.

(j) CONCENTRATION OF COMPONENTS

Certain key components used in the Company's products, including transponders and application specific integrated circuits, are purchased from single or limited sources. This concentration exposes the Company to risk of manufacturing delays and the possibility of lost sales.

(k) USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported results of operations during the reporting period. Actual results could differ from those estimates.

(l) RECENT ACCOUNTING PRONOUNCEMENTS

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. SFAS No. 133 established accounting and reporting standards for derivative instruments, including derivative instruments embedded in other contracts, and for hedging activities. SFAS No. 133, as amended by SFAS No. 137, Deferral of the Effective Date of FASB Statement No. 133, is effective for all fiscal quarters of fiscal years beginning after June 15, 2000. The adoption of this statement has not had a material effect on the Company's financial position or results of operations.

In December 1999, the Securities and Exchange Commission (SEC) issued Staff Accounting Bulletin (SAB) No. 101, Revenue Recognition, which outlines the basic criteria that must be met to recognize revenue and provides guidance for presentation of revenue and for disclosure related to revenue recognition policies in financial statements filed with the SEC. The adoption of SAB No. 101

did not have a material impact on the Company's financial position and results of operations as the Company has not had any revenue to date.

In March 2000, the FASB issued Interpretation No. 44 (FIN No. 44), Accounting for Certain Transactions Involving Stock Compensation -- an Interpretation of APB 25. FIN No. 44 clarifies (i) the definition of employee for purposes of applying APB Opinion No. 25, (ii) the criteria for determining whether a plan qualifies as a noncompensatory plan, (iii) the accounting consequences of various modifications to the terms of a previously fixed stock option or award, and (iv) the accounting for an exchange of stock compensation awards in a business combination. FIN No. 44 is effective July 1, 2000, but certain conclusions in this interpretation cover specific events that occur after either December 15,

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES -- CONTINUED
1998, or January 12, 2000. The adoption of certain of the conclusions of FIN No. 44 covering events occurring during the period after December 15, 1998 or January 12, 2000 did not have a material effect on the Company's financial position and results of operations. The adoption of this statement did not have a material effect on the Company's financial position or results of operations.

(n) RECLASSIFICATIONS

Pursuant to recent guidance from the staff of the Securities and Exchange Commission, the Company has reclassified its convertible preferred stock to a separate classification outside of stockholders' deficit.

(3) SHORT-TERM INVESTMENTS

The following is a summary of available-for-sale securities:

	DECEMBER 31,	
	1999	2000
Money market funds	$37,586	$ 42,614
Commercial paper	4,985	63,465
Municipal obligations	3,000	23,687
Corporate bonds	2,003	10,552
Government agency bonds	--	5,080
	47,574	145,398
Less amounts classified as cash equivalents	42,571	42,550
Securities available-for-sale	$ 5,003	$102,848

As of December 31, 1999, the aggregate amortized cost of all available-for-sale debt securities approximates the estimated fair value. As of December 31, 2000, the Company recognized an unrealized gain of $230 which is included in the comprehensive loss for the year ended December 31, 2000.

The contractual maturities of available-for-sale debt securities included in short-term investments is as follows:

	DECEMBER 31,	
	1999	2000
Due within one year	$3,003	$100,248
Due in 2020 through 2035	2,000	2,600
	$5,003	$102,848

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS -- CONTINUED
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

(4) PROPERTY AND EQUIPMENT

Property and equipment consisted of the following:

	DECEMBER 31,	
	1999	2000
Computer equipment	$1,523	$5,609
Software	1,413	3,623
Furniture and fixtures	298	648
Leasehold improvements	22	258
	3,256	10,138
Less accumulated depreciation and amortization	589	2,726
	$2,667	$7,412

Certain property and equipment are recorded under capital leases that aggregated $1,745, net of accumulated amortization of $528 as of December 31, 1999, and $1,410, net of accumulated amortization of $1,515 as of December 31, 2000.

(5) INCOME TAXES

The differences between the income tax expense computed at the federal statutory rate and the Company's tax provision for all periods presented primarily related to net operating losses for which no benefit has been taken. Income tax expense for the years ended December 31, 1999 and 2000, relates to state taxes. The types of temporary differences that give rise to significant portions of the Company's deferred tax assets and liabilities are as follows:

	DECEMBER 31,	
	1999	2000
Deferred tax assets:		
Accruals and reserves not deductible for tax	$ 143	$ 6,004
Property and equipment	14	--
Capitalized startup expenditures	1,234	753
Net operating loss carryforward	3,936	26,317
Stock compensation	--	15,014
Research and development credit carryforward	535	6,155
Other	--	3,177
	5,862	57,420
Valuation allowance	(5,862)	(57,386)
	--	34
Deferred tax liabilities -- property and equipment	--	(34)
	$ --	$ --

In light of the Company's history of operating losses, the Company has provided a valuation allowance for all of its deferred tax assets as it is presently unable to conclude that it is more likely than not that the deferred tax assets will be realized.

(5) INCOME TAXES -- CONTINUED

The Company has net operating loss carryforwards for federal and state income tax purposes of approximately $9,200 and $61,200 as of December 31, 1999 and 2000, respectively. In addition, the Company had federal and state research and development credit carryforwards as of December 31, 2000 of approximately $3,779 and $2,376, respectively. The Company's federal net operating loss and research and development credit carryforwards will expire in the years 2019 and 2020, respectively, if not utilized. The Company's state net operating loss carryforwards will expire in the year 2006. The state research and development credit can be carried forward indefinitely.

Federal and state tax laws impose substantial restrictions on the utilization of net operating loss and tax credit carryforwards in the event of an "ownership change" as defined in Internal Revenue Code Section 382. If the Company has an ownership change, the Company's ability to utilize the above mentioned carryforwards could be significantly reduced. The Company has not yet determined whether an ownership change has occurred.

(6) SUBORDINATED CONVERTIBLE NOTES

In August 2000, the Company issued $150 million of 4 1/2% convertible subordinated notes due August 15, 2005. Interest is payable on February 15 and

August 15 of each year, beginning February 15, 2001. The notes will be convertible to common stock upon certain qualifying events, including the initial public offering (IPO) of our common stock. In the event of an IPO, the notes are convertible to common stock at a premium to the IPO price. If an IPO has not occurred on or before March 31, 2002, the Company will be obligated to make an offer to repurchase the notes at 118.9% of the principal balance thereof on April 30, 2002. The Company is accreting the redemption premium over the period to April 30, 2002, such that the carrying value of the notes equals the redemption price at the date of the redemption obligation. Accretion of the redemption premium was $6,393 during the year ended December 31, 2000.

(7) LONG-TERM DEBT

On January 11, 1999, the Company entered into a loan facility agreement with a financial institution. The agreement allows for term loans in the aggregate principal amount of $3,000 and equipment loans in the aggregate principal amount of $3,000. Borrowings under the agreement are repayable in 36 equal installments of principal plus interest commencing on the individual loan inception dates, and each month thereafter, with a final balloon payment. The loan facilities bear interest at an effective rate of approximately 14% per annum, with the term loans secured by the assets of the Company and the equipment loans secured by the equipment leased. As of December 31, 1999 and 2000, the balances of the term loans are $2,499 and $1,643, respectively. As of December 31, 2000, principal payments due under the term loans in 2001 and 2002 are $976 and $667, respectively.

In conjunction with the loan facility agreement, the Company issued warrants to purchase 3,600,000 shares of Series B convertible preferred stock at a price of $0.13 per share. As of December 31, 2000, the lender had not exercised the warrants. The fair value of the warrants was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions: no dividends; risk-free rate of 4.65%; volatility of 65% and contractual life of seven years. The fair value of the warrants at the date of grant was $280 and has been recorded as a discount on the term loans and capital leases. The discount is being amortized as interest expense over the life of the loans and capital leases. As of December 31, 2000, the current and long-term portion of the unamortized discount on term loans was $23 and $23, respectively.

(8) COMMITMENTS

The Company leases certain equipment and its facilities under various noncancelable operating leases. In addition, the Company has certain capital leases for computers and equipment per the loan facility agreement referred to in Note 7. The leases expire between 2001 and 2013. As of December 31, 2000, future minimum lease payments required under capital and operating leases are as follows:

YEAR ENDING DECEMBER 31,	CAPITAL LEASES	OPERATING LEASES
2001.....	$1,134	$ 2,705

2002	968	3,130
2003	118	3,251
2004	--	3,393
2005	--	3,543
Thereafter	--	20,142
Total future minimum lease payments	2,220	$36,164
Less amounts representing interest	275	
Less discount on capital leases due to warrants	47	
	1,898	
Less current portion of capital lease obligations	910	
Capital lease obligation, less current portion	$ 988	

Rent expense was $12, $307 and $1,489 for the period from July 24, 1998 (inception) to December 31, 1998, and the years ended December 31, 1999 and 2000, respectively.

In October 2000, the Company entered into a 12-year lease for a new commercial building, commencing on March 1, 2001. The base rent is $159 per month and will be increased by 4% each year over the 12-year term. In connection with the lease agreement, the Company issued warrants to purchase 25,000 shares of Series E convertible preferred stock at an exercise price of $18.47 per share. The fair value of the warrants at the date of grant was $151 and has been recorded as prepaid rent and will be expensed over the term of the lease. Additionally, the Company issued warrants to purchase 25,896 shares of Series E convertible preferred stock at an exercise price of $0.01 per share. The fair value of the warrants at the date of grant was $259 and has been recorded as prepaid rent which will be expensed over the term of the lease. The fair value of the warrants are estimated using the Black-Scholes option pricing model with the following weighted-average assumptions: no dividend yield; volatility of 85%; risk-free interest rate of 6.31% and a contractual life of five years.

(9) CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT

(a) COMMON STOCK

In connection with the formation of the Company in July 1998, the Company issued 18,000,000 shares of restricted common stock to the four founders of the Company at $0.002 per share. In August 1998, the Company repurchased 720,000 shares of common stock at the original purchase price. The founders purchased the shares in part by issuing 10-year promissory notes to the Company amounting to $19 which bear interest at 7% per annum. The notes are due and payable at the earlier of August 2009 or upon leaving the Company, and are secured by the common stock. In August 1998, the Company issued an additional 4,320,000 shares of common stock to a director at $0.004 per share. The shares vest in

(9) CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT -- CONTINUED
48 equal monthly installments commencing on April 15, 1998 (predated prior to inception), or on the occurrence of a change of control event. Upon termination

of employment, the Company may repurchase all unvested shares at $0.002 and $0.004 per share, respectively. As of December 31, 1999 and 2000, 12,600,000 and 7,200,000 shares were subject to repurchase, respectively.

The Company maintains a right of first refusal with respect to restricted common stock. A restricted common stockholder must notify the Company prior to selling these restricted shares to a third party. Upon notification, the Company may purchase the restricted shares from the restricted common stockholder at the price offered by the third party.

During the years ended December 31, 1999 and 2000, the Company received $80 and $9,596, respectively, in promissory notes from certain officers and employees in exchange for common stock. The notes are repayable over a period of five years and bear interest at 7% per annum. The notes are full recourse and are secured by the underlying common stock.

(b) CONVERTIBLE PREFERRED STOCK

In September 1998, the Company issued 7,200,000 shares of Series A convertible preferred stock at a price of $0.04 per share for cash proceeds of $300.

In October 1998, the Company issued 70,143,996 shares of Series B convertible preferred stock at a price of $0.13 per share for cash proceeds of $8,731, net of issuance costs of $37.

In August and October 1999, the Company issued 52,646,118 shares of Series C convertible preferred stock at a price of $0.61 per share for cash proceeds of $32,169, net of issuance costs of $33.

In December 1999, the Company issued 5,381,436 shares of Series D convertible preferred stock at a price of $2.70 for cash proceeds of $14,467, net of issuance costs of $35.

In January, March and April 2000, the Company issued 2,213,511 shares of Series D Convertible Preferred Stock at a price of $2.70 for cash proceeds of $5,966.

In September 2000, the Company issued 270,756 shares of Series E convertible preferred stock at a price of $18.47 for cash proceeds of $4,990, net of issuance costs of $10.

The rights, preferences, and privileges of the holders of Series A, B, C, D and E convertible preferred stock are as follows:

- Each share of preferred stock is convertible into one share of common stock, subject to certain antidilutive adjustments, except that Series E convertible preferred stock is convertible at the lower of the issue price or 90% of a qualifying future initial public offering. Accordingly, if such a qualifying initial public offering occurs, the Company will recognize the beneficial conversion amount of approximately $556 as a deemed dividend to the Series E stockholders.

- Shares of preferred stock automatically convert to common stock on the earlier of consummation of an underwritten initial public offering in which the aggregate proceeds are at least $20,000, or the date specified by written consent or agreement of at least two-thirds of the respective series shareholders.

- Holders of preferred stock are entitled to dividends in preference to common shareholders at a rate of 8% of the original issue price per share per annum, if and when declared by the Company's Board of Directors.

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS -- CONTINUED
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

(9) CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT -- CONTINUED

- Preferred stock votes equally with the shares of common stock on an "as-if-converted" basis, but also has class voting rights as provided by law and in the Articles of Incorporation.

- Holders of preferred stock have a liquidation preference of the original purchase price per share, plus all declared but unpaid dividends.

(c) STOCK OPTION PLAN

The 1998 Stock Plan permits the Company to grant employees, outside directors, and consultants qualified stock options, nonstatutory stock options or stock purchase rights to purchase shares of the Company's common stock. Options generally vest 25% with respect to the number granted upon the first anniversary date of the option grant and the remainder vest in equal monthly installments over the 36 months thereafter. Options are exercisable immediately. Shares issued upon exercise of non-vested stock options are subject to the Company's right to repurchase at the original exercise price. The Company's repurchase right lapses in accordance with the vesting schedule for the stock options. As of December 31, 1999 and 2000, 19,969,005 and 26,875,651 shares were subject to repurchase at a weighted-average exercise price of $0.02 and $0.44, respectively. As of December 31, 1999 and 2000, 20,407,578 and 9,940,614 shares were available for future option grants.

A summary of the activity under the Company's option plan is as follows:

	JULY 24, 1998 (INCEPTION) THROUGH DECEMBER 31, 1998		YEAR ENDED DECEMBER 31, 1999		D
	SHARES	WEIGHTED-AVERAGE EXERCISE PRICE	SHARES	WEIGHTED-AVERAGE EXERCISE PRICE	SHARE
Outstanding at beginning of period	--	$ --	5,845,002	$0.01	7,057
Granted	5,845,002	0.01	26,955,300	0.03	37,351
Exercised	--	--	(24,717,048)	0.02	(24,811
Forfeited	--	--	(1,026,000)	0.02	(4,718
Outstanding at end of period	5,845,002	$0.01	7,057,254	$0.05	14,878
Weighted-average fair value of options granted during the period with exercise prices equal to fair value at date of grant	5,845,002	0.01	22,455,300	0.01	
Weighted-average fair value of options					

granted during the period with exercise prices less than fair value at date of grant.....	--	--	4,500,000	0.17	37,351

CYRAS SYSTEMS, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS -- CONTINUED
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

(9) CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT -- CONTINUED

The following table summarizes information about such stock options outstanding as of December 31, 2000:

	OPTIONS OUTSTANDING		
RANGE OF EXERCISE PRICES	NUMBER OUTSTANDING	WEIGHTED-AVERAGE REMAINING CONTRACTUAL LIFE (YEARS)	WEIGHTED-AVERAGE EXERCISE PRICE PER SHARE
$0.01 to $0.50	7,225,926	8.75	$0.28
$0.67 to $1.17	1,196,766	9.52	1.06
$6.00	6,456,250	9.76	6.00
	14,878,942	9.25	$2.82

The Company uses the intrinsic-value method in accounting for its stock-based compensation arrangements for employees, whereby compensation cost is recognized to the extent the fair value of the underlying common stock exceeds the exercise price of the stock options at the date of grant. Deferred stock compensation of $515 and $110,867 has been recorded during the years ended December 31, 1999 and 2000, respectively, for the excess of the fair value of the common stock underlying the options at the grant date over the exercise price of the options. These amounts are being amortized on an accelerated basis over the vesting period, generally four years, consistent with the method described in FASB Interpretation No. 28. Amortization of deferred compensation related to employee grants was $20 and $28,241 during the years ended December 31, 1999 and 2000, respectively.

Had compensation cost been determined in accordance with SFAS No. 123 for all of the Company's stock-based compensation plans, net loss would have been changed to the amounts indicated below for the period from July 24, 1998 (inception) to December 31, 1998, and for the years ended December 31, 1999 and 2000:

	1998	1999	2000
Net loss:			

As reported	$(726)	$(11,727)	$(108,918)
Pro forma	$(728)	$(11,785)	$(110,588)

The fair value of options granted to employees are estimated on the date of grant using the minimum value method with the following weighted-average assumptions: no dividend yield; risk-free interest rate of 4.82%, 5.69% and 6.31% in 1998, 1999 and 2000, respectively; and an expected life of three years.

Under the 1998 Stock Plan, the Company issued 445,002, 136,800 and 265,200 stock options to nonemployees in 1998, 1999 and 2000, respectively, in exchange for consulting services rendered. These stock options were fully vested at the date of grant. The aggregate estimated fair value of these shares and the resulting expense based on the Black-Scholes option pricing model was not material in 1998 and 1999, and $2,081 in 2000. In addition, the Company granted 960,000 and 645,000 options in 1999 and 2000, respectively, to nonemployees, which vest ratably over 24 months as services are performed. Deferred stock compensation of $493 and $7,901 has been recorded in 1999 and 2000, respectively, for the fair value of these options. Amortization of deferred stock compensation related to these nonemployee grants was $39 in 1999 and $4,666 in 2000. The fair value of the options granted to nonemployees are estimated using the Black-Scholes option pricing model with the following weighted-average assumptions: no dividend yield; volatility of 65% in 1999 and 65% to 85% in 2000; risk-free interest rate of 5.69% and 6.31% in 1999 and

(9) CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT -- CONTINUED

2000, respectively; and a contractual life of 10 years. The fair value of the unvested portion of these options is subject to adjustment based upon the future value of the Company's common stock.

(d) WARRANTS

In addition to the warrants issued in connection with a borrowing arrangement discussed in Note 7 and the facility lease discussed in Note 8, the Company issued to a third party, in consideration for product promotion, evaluation and feedback services to be performed, warrants to purchase 20,000 shares of common stock at an exercise price equal to the fair market value on the effective date. The warrants became vested on December 31, 2000 and the fair value of the warrants of $145 has been charged to sales and marketing expense. The fair value of the warrants are estimated using the Black-Scholes option pricing model with the following weighted-average assumptions: no dividend yield; volatility of 85%; risk-free interest rate of 6.31% and a contractual life of five years.

(10) EMPLOYEE BENEFIT PLAN

During the year ended December 31, 1999, the Company adopted a 401(k) Plan. The 401(k) Plan allows eligible employees to contribute up to 15% of their compensation, subject to a statutory prescribed annual limit. Employee contributions and earnings thereon vest immediately. Although the Company may make discretionary contributions to the 401(k) Plan, none have been made as of December 31, 2000.

(11) SEGMENT INFORMATION

SFAS No. 131, Disclosure About Segments of an Enterprise and Related Information, establishes standards for the manner in which public companies report information about operating segments, products and services, geographic areas and major customers in annual and interim financial statements. The method of determining what information to report is based on the way that management organizes the operating segments within the enterprise for making operating decisions and assessing financial performance.

The Company's chief operating decision maker is considered to be the Company's Chief Executive Officer (CEO). From inception of the Company through December 31, 2000, the Company has had one product line. The CEO reviews financial information on an entity level basis for purposes of making operating decisions and assessing financial performance. The entity level financial information is the same as the information presented in the accompanying statements of operations. Accordingly, the Company has determined that it is engaged in a single operating segment.

(12) SUBSEQUENT EVENTS

On January 30, 2001, commercial paper with a face value of $5,300 which was purchased by the Company as a short-term investment, matured and the issuer defaulted on the obligation. The Company also owns additional commercial paper from a subsidiary of the same issuer with a face value of $4,200 due February 20, 2001. The default represents an other than temporary decline in the fair value of the investment, however, the issuer has publicly announced that it intends to make their investors whole with respect to the obligations on which they have defaulted. At this time, it is not clear whether the issuer has the financial resources to make restitution on their defaulted obligations or meet the payment obligations of future maturities of their commercial paper. The Company will be required to adjust the carrying value to the fair value in the first quarter 2001 and recognize an impairment loss estimated between $1,425 and $1,900.

117

APPENDIX A

AGREEMENT AND PLAN OF MERGER

AMONG

CIENA CORPORATION

CYRAS SYSTEMS, INC.

AND

CO ACQUISITION CORP.

DATED AS OF DECEMBER 18, 2000

118

TABLE OF CONTENTS

	PAGE
ARTICLE I THE MERGER	1

SECTION 1.1.	General	2
SECTION 1.2.	Certificate of Incorporation	2
SECTION 1.3.	The By-Laws	2
SECTION 1.4.	Board of Directors and Officers	2
SECTION 1.5.	Conversion of Securities	2
SECTION 1.6.	Adjustment of the Exchange Ratio	4
SECTION 1.7.	Dissenting Shares	4
SECTION 1.8.	Exchange Procedures; Distributions with Respect to Unexchanged Shares; Stock Transfer Books	5
SECTION 1.9.	No Fractional Shares	6
SECTION 1.10.	Return of Exchange Fund	6
SECTION 1.11.	No Further Ownership Rights in Company Capital Stock	7
SECTION 1.12.	Further Assurances	7
ARTICLE II	REPRESENTATIONS AND WARRANTIES OF THE COMPANY	7
SECTION 2.1.	Organization and Qualification	7
SECTION 2.2.	Certificate of Incorporation and Bylaws	7
SECTION 2.3.	Capitalization	7
SECTION 2.4.	Authority	8
SECTION 2.5.	No Conflict; Required Filings and Consents	8
SECTION 2.6.	Financial Statements	8
SECTION 2.7.	Absence of Certain Changes or Events	9
SECTION 2.8.	Ownership and Condition of the Assets	9
SECTION 2.9.	Leases	10
SECTION 2.10.	Other Agreements	10
SECTION 2.11.	Real Property	11
SECTION 2.12.	Environmental Matters	11
SECTION 2.13.	Litigation	12
SECTION 2.14.	Compliance with Laws	12
SECTION 2.15.	Intellectual Property	12
SECTION 2.16.	Taxes and Assessments	13
SECTION 2.17.	Employment and Benefit Matters	13
SECTION 2.18.	Transactions with Related Parties	15
SECTION 2.19.	Insurance and List of Claims	15
SECTION 2.20.	Brokers	15
SECTION 2.21.	Disclosure	15
SECTION 2.22.	Absence of Violation	15
SECTION 2.23.	Customers and Suppliers	16
ARTICLE III	REPRESENTATIONS AND WARRANTIES OF CIENA	16
SECTION 3.1.	Organization and Qualification	16
SECTION 3.2.	Certificate of Incorporation and Bylaws	16
SECTION 3.3.	Authority	16
SECTION 3.4.	No Conflict; Required Filings and Consents	16
SECTION 3.5.	Brokers	17
SECTION 3.6.	Issuance of CIENA Stock	17

PAGE

SECTION 3.7.	SEC Filings	17
SECTION 3.8.	Litigation	17
SECTION 3.9.	Capitalization	17
SECTION 3.10.	Reorganization under Section 368(a) of the Code	18
SECTION 3.11.	Absence of Certain Changes or Events	18

ARTICLE IV REPRESENTATIONS AND WARRANTIES OF MERGER SUB..... 18
SECTION 4.1. Organization and Qualification..... 18
SECTION 4.2. Authority..... 18
SECTION 4.3. No Conflict; Required Filings and Consents..... 18

ARTICLE V CONDUCT PENDING CLOSING..... 19
SECTION 5.1. Conduct of Business Pending Closing..... 19
SECTION 5.2. Prohibited Actions Pending Closing..... 19
SECTION 5.3. Access; Documents; Supplemental Information..... 21
SECTION 5.4. No Solicitation..... 21
SECTION 5.5. Information Supplied..... 22
SECTION 5.6. Stockholder Meeting..... 22
SECTION 5.7. Filings; Other Actions; Notification..... 23
SECTION 5.8. Comfort Letters..... 23
SECTION 5.9. Nasdaq Listing..... 23
SECTION 5.10. Company Stock Options; Company Warrants..... 23
SECTION 5.11. Notification of Certain Matters..... 24
SECTION 5.12. Reorganization..... 25
SECTION 5.13. Indemnification..... 25
SECTION 5.14. Actions by the Parties..... 25

ARTICLE VI CONDITIONS PRECEDENT..... 25
SECTION 6.1. Conditions Precedent to Each Party's Obligation to Effect the Merger..... 25
SECTION 6.2. Conditions Precedent to Obligations of CIENA..... 26
SECTION 6.3. Conditions Precedent to the Company's Obligations..... 26

ARTICLE VII SURVIVAL OF REPRESENTATIONS AND WARRANTIES; INDEMNIFICATION..... 27
SECTION 7.1. Survival of Representations and Warranties..... 27
SECTION 7.2. Indemnification; Escrow Agreements..... 27
SECTION 7.3. Stockholder's Representative..... 28
SECTION 7.4. Defense of Third Party Claims..... 30
SECTION 7.5. Maximum Payments; Remedy..... 31

ARTICLE VIII MISCELLANEOUS AND GENERAL..... 31
SECTION 8.1. Expenses..... 31
SECTION 8.2. Press Releases..... 31
SECTION 8.3. Contents of Agreement; Parties in Interest; Etc. 31
SECTION 8.4. Assignment and Binding Effect..... 31
SECTION 8.5. Termination..... 32
SECTION 8.6. Joint Integration Team..... 34
SECTION 8.7. Definitions..... 34
SECTION 8.8. Notices..... 36
SECTION 8.9. Amendment..... 37
SECTION 8.10. Governing Law..... 37

PAGE

SECTION 8.11. No Benefit to Others..... 37
SECTION 8.12. Severability..... 37
SECTION 8.13. Section Headings..... 38
SECTION 8.14. Schedules and Exhibits..... 38
SECTION 8.15. Extensions..... 38
SECTION 8.16. Counterparts..... 38

EXHIBIT INDEX

Exhibit A Form of Stockholder Agreement
Exhibit B Form of Escrow Agreement

AGREEMENT AND PLAN OF MERGER

AGREEMENT AND PLAN OF MERGER (this "Agreement") dated as of December 18, 2000, by and among CIENA CORPORATION, a Delaware corporation ("CIENA"), CYRAS SYSTEMS, INC., a Delaware corporation (the "Company"), and CO ACQUISITION CORP., a Delaware corporation ("Merger Sub").

RECITALS

WHEREAS, the Boards of Directors of each of CIENA, Merger Sub and the Company have determined that the merger of Merger Sub with and into the Company (the "Merger") in accordance with the provisions of the Delaware General Corporation Law, as amended (the "DGCL"), and subject to the terms and conditions of this Agreement, is advisable and in the best interests of CIENA, Merger Sub and the Company and their respective stockholders;

WHEREAS, the Company is a Delaware corporation and has authorized 847,300,000 shares of common stock, par value $0.0001 per share ("Company Common Stock"), and 152,700,000 shares of preferred stock, $0.0001 par value per share ("Company Preferred Stock"), of which 7,200,000 shares have been designated Series A Preferred Stock ("Series A Preferred Stock"), 73,800,000 shares have been designated Series B Preferred Stock ("Series B Preferred Stock"), 57,000,000 shares have been designated Series C Preferred Stock ("Series C Preferred Stock"), 13,200,000 shares have been designated Series D Preferred Stock ("Series D Preferred Stock") and 1,500,000 shares have been designated Series E Preferred Stock (the "Series E Preferred Stock") (the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock, the Series D Preferred Stock and the Series E Preferred Stock are referred to as the "Company Preferred Stock," and the Company Preferred Stock and the Company Common Stock are referred to as the "Company Capital Stock");

WHEREAS, in order to induce CIENA and Merger Sub to enter into this Agreement, concurrently herewith each stockholder of the Company who also is a director or officer of the Company and persons affiliated with such persons, are entering into stockholder agreements with CIENA in the form attached hereto as EXHIBIT A, pursuant to which, among other things, each such stockholder agrees to vote in favor of adoption of this Agreement and the Merger, and grants an option to CIENA to purchase such stockholder's Company Capital Stock upon the occurrence of certain events;

WHEREAS, in order to induce CIENA and the Company to enter into this Agreement, CIENA and each of the officers of the Company who were parties to employment agreements with the Company immediately prior to the date hereof have entered into employment agreements, to be effective upon the closing of the transactions contemplated hereby; and

WHEREAS, the parties intend that, for federal income tax purposes, the Merger shall qualify as a reorganization within the meaning of Section 368(a) of the Code.

NOW, THEREFORE, in consideration of the foregoing and the mutual representations, warranties, covenants and agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto intending to be legally bound do hereby agree as follows:

ARTICLE I

THE MERGER

SECTION 1.1. General.

(a) Subject to the terms and conditions of this Agreement and in accordance with the DGCL, at the Effective Time (i) Merger Sub shall be merged with and into the Company, (ii) the separate corporate

existence of Merger Sub shall cease and (iii) the Company shall be the surviving company (the "Surviving Company") and shall continue its legal existence under the laws of the State of Delaware.

(b) The Merger shall become effective at the time of filing of a Certificate of Merger with the Secretary of State of the State of Delaware in accordance with the provisions of Section 251 of the DGCL, or at such later time as may be stated in the Certificate of Merger (the "Effective Time"). The closing of the Merger (the "Closing") shall take place at the offices of Hogan & Hartson, LLP, 111 South Calvert Street, Baltimore, Maryland 21202 at 10:00 A.M., two Business Days after the date on which the last of the conditions set forth in ARTICLE VI shall have been satisfied or waived, or on such other date, time and place as the Company and CIENA may mutually agree (the "Closing Date").

(c) At the Effective Time, the effect of the Merger shall be as provided in the applicable provisions of the DGCL. Without limiting the generality of the foregoing, and subject thereto, at the Effective Time, all the property, rights, privileges, powers and franchises of the Company and Merger Sub shall vest in the Surviving Company, and all debts, liabilities, obligations, and duties of the Company and Merger Sub shall become the debts, liabilities, obligations, restrictions, disabilities and duties of the Surviving Company.

SECTION 1.2. Certificate of Incorporation.

The Certificate of Incorporation of the Company, as in effect immediately prior to the Effective Time (the "Company Certificate"), shall be the Certificate of Incorporation of the Surviving Company, until thereafter amended as provided therein and by law.

SECTION 1.3. The By-Laws.

The By-laws of the Merger Sub, as in effect immediately prior to the Effective Time, shall be adopted at the Effective Time as the By-laws of the Surviving Company, until thereafter amended as provided therein and by law.

SECTION 1.4. Board of Directors and Officers.

From and after the Effective Time, the Board of Directors and Officers of Merger Sub at the Effective Time shall be the Board of Directors and Officers of the Surviving Company, each to hold office until his or her respective successors are duly elected or appointed and qualified.

SECTION 1.5. Conversion of Securities.

At the Effective Time, by virtue of the Merger and without any action on the part of the Company or the holders of the Company's Capital Stock (the "Stockholders"):

(a) Each share of common stock of Merger Sub issued and outstanding immediately prior to the Effective Time shall be converted into one share of common stock of the Surviving Company;

(b) Each share of Company Capital Stock held in the treasury of the Company and each share of Company Capital Stock owned by CIENA shall be canceled without any conversion thereof and no payment or distribution shall be made with respect thereto; and

(c) At the Effective Time, the then issued and outstanding shares of Company Capital Stock shall be converted into an aggregate of 27,000,000 shares (the "Aggregate Share Consideration") of CIENA common stock, par value $0.01 per share ("CIENA Common Stock" or "CIENA Stock"), to be distributed in accordance with this SECTION 1.5(c). Subject to the provisions of SECTIONS 1.6 and 1.9, each share of Company Capital Stock issued and outstanding immediately prior to the Effective Time (other than (i) shares canceled in accordance with SECTION 1.5(b) and (ii) Dissenting Shares) shall be converted into a fraction of a share of CIENA Common Stock including the corresponding fraction of a right ("Right") to purchase shares of series A junior participating preferred stock, par

value $0.01 per share, pursuant to the Rights Agreement dated as of December 29, 1997 between CIENA and BankBoston, N.A. as Rights Agent, determined as follows:

(i) at the Effective Time, the Aggregate Share Consideration shall be multiplied by a dollar value equal to the Assumed Value (as defined below) (such total amount being referred to herein as the "Aggregate Value");

(ii) each share of a particular series of Company Preferred Stock outstanding, if any, at the Effective Time shall be converted into a portion of a share of CIENA Common Stock (the "Preferred Stock Exchange Ratio") equal to:

$$\frac{\text{Preferred Liquidation Value}}{\text{Assumed Value}}$$

(iii) each share of Company Common Stock outstanding at the Effective Time shall be converted into a portion of a share of CIENA Common Stock (the "Common Stock Exchange Ratio") equal to:

$$\frac{\text{Aggregate Share Consideration} + \text{Option Consideration} - \text{Preferred Share Consideration}}{\text{Assumed Value}}$$

Company Outstanding Shares + Stock Option Equivalents

For purposes hereof, the following definitions apply:

"Assumed Value" = the lower of (i) the average closing price of a share of CIENA Common Stock as reported on the NASDAQ National Market ("NASDAQ") for the

	twenty most recent days that CIENA Common Stock has traded ending on the third trading day prior to the Effective Time, and (ii) the closing price of a share of CIENA Common Stock as reported on NASDAQ on the last full trading day prior to the Effective Time.
"Company Outstanding Shares" =	the total number of shares of Company Common Stock outstanding at the Effective Time.
"Preferred Liquidation Value" =	the portion of the Aggregate Value allocated to each of the outstanding shares of a particular series of Company Preferred Stock pursuant to Article IV.B., Section 2 of the Amended and Restated Certificate of Incorporation of the Company, treating the Merger as a Liquidation for purposes thereof.
"Preferred Share Consideration" =	the total number of shares of CIENA Common Stock allocated at the Effective Time to holders of Company Preferred Stock.
"Option Consideration" =	the aggregate amount receivable from holders of Company Stock Options and Company Warrants upon the exercise of all Company Stock Options and Company Warrants (assuming they were exercised for cash).
"Stock Option Equivalents" =	the number of shares of Company Common Stock issuable upon exercise of all Company Stock Options and Company Warrants outstanding at the Effective Time (except for those which expire at the Effective Time or by their terms will expire following the Effective Time without becoming exercisable due to vesting provisions).

As of the date of this Agreement, there are 15,361,242 Company Stock Options issued and outstanding. Notwithstanding the foregoing calculations, the Company may grant additional Company Stock Options after the date of this Agreement and prior to the Closing Date to new hires consistent with

the Company's current new hire option grant policy, at the fair market value of the Company at such time (taking into account this Agreement and the proposed consideration provided for hereunder), in an amount not to exceed twenty-five thousand (25,000) multiplied by the number of days between the date of this Agreement and the Closing Date, provided that such amount shall not exceed 3,000,000 shares, and such Company Stock Options shall not be included in the calculations of the Common Stock Exchange Ratio.

All references in this Agreement to CIENA Common Stock to be received in accordance with the Merger shall be deemed, from and after the Effective Time, to include the Rights. After the Effective Time, except for shares of Company Common Stock exchanged for shares of Merger Sub all such shares of Company Capital Stock shall no longer be outstanding and shall automatically be canceled and retired, and each holder of a certificate representing any such shares shall cease to have any rights with respect thereto other than (i) the right to

receive shares of CIENA Common Stock to be issued in consideration therefor upon the surrender of such certificate, (ii) any dividends and other distributions in accordance with SECTION 1.8(c) and (iii) any cash, without interest, to be paid in lieu of any fractional share of CIENA Common Stock in accordance with SECTION 1.9.

SECTION 1.6. Adjustment of the Exchange Ratio.

In the event that, prior to the Effective Date, any stock split, combination, reclassification or stock dividend with respect to the CIENA Common Stock, any change or conversion of CIENA Common Stock into other securities or any other dividend or distribution with respect to the CIENA Common Stock should occur or, if a record date with respect to any of the foregoing should occur, appropriate and proportionate adjustments shall be made to the Aggregate Share Consideration and Exchange Ratios, and thereafter all references to the Aggregate Share Consideration and Exchange Ratios shall be deemed to be to such Aggregate Share Consideration and Exchange Ratios as so adjusted.

SECTION 1.7. Dissenting Shares.

(a) Notwithstanding any provision of this Agreement to the contrary, shares of Company Capital Stock that are outstanding immediately prior to the Effective Time and which are held by stockholders who shall not have voted in favor of the Merger or consented thereto in writing and who shall have demanded properly in writing appraisal for such shares in accordance with Section 262 of the DGCL (collectively, the "Dissenting Shares") shall not be converted into or represent the right to receive the consideration set forth in SECTION 1.5. Such stockholders shall be entitled to receive such consideration as is determined to be due with respect to such Dissenting Shares in accordance with the provisions of Section 262, except that all Dissenting Shares held by stockholders who shall have failed to perfect or who effectively shall have withdrawn or lost their rights to appraisal of such shares under Section 262 shall thereupon be deemed to have been converted into and to have become exchangeable for, as of the Effective Time, the right to receive the shares of CIENA Common Stock specified in SECTION 1.5, without any interest thereon, upon surrender, in the manner provided in SECTION 1.8, of the certificate or certificates that formerly evidenced by such Dissenting Shares less the number of shares of CIENA Common Stock allocable to such stockholder that have been deposited in the Escrow Fund in respect of Company Capital Stock pursuant to SECTIONS 1.8(b) and 7.2.

(b) The Company shall give CIENA (i) prompt notice of any demands for appraisal received by the Company, withdrawals of such demands, and any other instruments served pursuant to the DGCL and received by the Company and (ii) the opportunity to direct all negotiations and proceedings with respect to demands for appraisal under the DGCL. The Company shall not, except with the prior written consent of CIENA, make any payment with respect to any demands for appraisal or offer to settle or settle any such demands.

(c) Notwithstanding the foregoing, as provided in ARTICLE VI, it is a condition to CIENA's obligations pursuant to this Agreement that holders of shares of Company Capital Stock representing in excess of 2.0% of the issued and outstanding Company Capital Stock immediately prior to the Effective Time shall not have demanded or exercised appraisal rights under Section 262 of the DGCL.

SECTION 1.8. Exchange Procedures; Distributions with Respect to Unexchanged Shares; Stock Transfer Books.

(a) As of the Effective Time, CIENA shall deposit with the Exchange Agent for the benefit of the holders of shares of Company Capital Stock, certificates

representing shares of the CIENA Common Stock to be issued as the Closing Payment pursuant to SECTION 1.5(c) in exchange for the shares of Company Capital Stock less the number of shares of CIENA Common Stock to be deposited in the Escrow Fund pursuant to SECTION 7.2, together with cash in an amount sufficient to permit the payment of cash in lieu of fractional shares pursuant to SECTION 1.9. (Such shares of CIENA Common Stock, together with any dividends or distributions with respect thereto pursuant to SECTIONS 1.8(c) and 1.9, are referred to herein as the "Exchange Fund").

(b) As soon as practicable after the Effective Time, CIENA shall cause the Exchange Agent to send to each Person who was, at the Effective Time, a holder of record of certificates which represented outstanding Company Capital Stock (the "Certificates") which shares were converted into the right to receive CIENA Common Stock pursuant to SECTION 1.5, a letter of transmittal which (i) shall specify that delivery shall be effected and risk of loss and title to such Certificates shall pass, only upon actual delivery thereof to the Exchange Agent and (ii) shall contain instructions for use in effecting the surrender of the Certificates. Upon surrender to the Exchange Agent of Certificates for cancellation, together with such letter of transmittal duly executed, such holder shall be entitled to receive in exchange therefor (A) a certificate representing the number of whole shares of CIENA Common Stock into which the Company Capital Stock represented by the surrendered Certificate shall have been converted at the Effective Time (less such holder's pro rata portion of the number of shares of CIENA Common Stock to be deposited in the Escrow Fund on such holder's behalf pursuant to SECTION 7.2), (B) cash in lieu of any fractional share of CIENA Common Stock in accordance with SECTION 1.9 and (C) certain dividends and distributions in accordance with SECTION 1.8(c), and the Certificates so surrendered shall then be canceled. Subject to SECTION 1.8(c) and SECTION 1.9, until surrendered as contemplated by this SECTION 1.8(b), each Certificate, from and after the Effective Time, shall be deemed to represent only the right to receive, upon such surrender, the number of shares of CIENA Common Stock into which such Company Capital Stock shall have been converted. As soon as practicable after the Effective Time, and subject to and in accordance with the provisions of SECTION 7.2, CIENA shall cause to be distributed to the Escrow Agent certificates representing 10% of the Closing Payment (the "Escrow Amount") which shall be registered in the name of the Escrow Agent as nominee for the holders of Certificates canceled pursuant to this SECTION 1.8. Such shares shall be beneficially owned by such holders, shall be held in escrow and shall be available to settle certain contingencies as provided in the Escrow Agreement. To the extent not used for such purpose, such shares shall be released, as provided in the Escrow Agreement.

(c) No dividends or other distribution declared or made after the Effective Time with respect to the CIENA Common Stock with a record date after the Effective Time shall be paid to any holder entitled by reason of the Merger to receive certificates representing CIENA Common Stock and no cash payment in lieu of a fractional share of CIENA Common Stock shall be paid to any such holder pursuant to SECTION 1.9 until such holder shall have surrendered its Certificates pursuant to this SECTION 1.8. Subject to applicable law, following surrender of any such Certificate, such holder shall be paid, in each case, without interest, (i) the amount of any dividends or other distributions theretofore paid with respect to the shares of CIENA Common Stock represented by the certificate received by such holder and having a record date on or after the Effective Time and a payment date prior to such surrender and (ii) at the appropriate payment date or as promptly as practicable thereafter, the amount of any dividends or other distributions payable with respect to such shares of CIENA Common Stock and having a record date on or after the Effective Time but prior to such surrender and a payment date on or after such surrender.

(d) If any certificate representing shares of CIENA Common Stock or any cash is to be issued or paid to any Person other than the registered holder of the Certificate surrendered in exchange therefor, it shall be a condition to

such exchange that such surrendered Certificate shall be properly endorsed and otherwise in proper form for transfer and such Person either (i) shall pay to the Exchange Agent any transfer or other taxes required as a result of the issuance of such certificates of CIENA Common Stock

and the distribution of such cash payment to such Person or (ii) shall establish to the reasonable satisfaction of the Exchange Agent that such tax has been paid or is not applicable. CIENA or the Exchange Agent shall be entitled to deduct and withhold from the consideration otherwise payable pursuant to this Agreement to any holder of shares of Company Capital Stock such amounts as CIENA or the Exchange Agent is required to deduct and withhold with respect to the making of such payment under the Code, or any provision of state, local or foreign tax law. To the extent that amounts are so withheld by CIENA or the Exchange Agent, such withheld amounts shall be treated for all purposes of this Agreement as having been paid to the holder of the shares of Company Capital Stock in respect of which such deduction and withholding was made by CIENA or the Exchange Agent. All amounts in respect of taxes received or withheld by CIENA shall be disposed of by CIENA in accordance with the Code or such state, local or foreign tax law, as applicable.

(e) If any Certificate shall have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the Person claiming such Certificate to be lost, stolen or destroyed and subject to such other conditions as the Board of Directors of the Surviving Company may impose, the Surviving Company shall issue in exchange for such lost, stolen or destroyed Certificate the shares of CIENA Common Stock as determined under SECTION 1.5(c) and pay any cash, dividends and distributions as determined in accordance with SECTION 1.8(c) and SECTION 1.9 in respect of such Certificate. When authorizing such issue of shares of CIENA Common Stock (and payment of any such cash, dividends and distribution) in exchange for such Certificate, the Board of Directors of the Surviving Company (or any authorized officer thereof) may, in its reasonable discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed Certificate to give the Surviving Company a bond in such sum as the Board of Directors may direct as indemnity against any claim that may be made against the Surviving Company with respect to the Certificate alleged to have been lost, stolen or destroyed.

(f) At the close of business on the day on which the Effective Time occurs, the stock transfer books of the Company shall be closed and thereafter there shall be no further registration of transfers of shares of Company Capital Stock on the records of the Company. From and after the Effective Time, the holders of shares of Company Capital Stock outstanding immediately prior to the Effective Time shall cease to have any rights with respect to such shares except as otherwise provided herein or by applicable law.

SECTION 1.9. No Fractional Shares.

No certificates or scrip representing fractional shares of CIENA Common Stock shall be issued upon the surrender for exchange of Certificates and such a fractional share shall not entitle the record or beneficial owner thereof to vote or to any other rights as a stockholder of CIENA. In lieu of receiving any such fractional share, each holder of Company Capital Stock who would otherwise have been entitled thereto upon the surrender of Certificates for exchange will receive cash (without interest) in an amount rounded to the nearest whole cent, determined by multiplying (i) the per share closing price on NASDAQ of CIENA Common Stock on the date on which the Effective Time shall occur (or, if the CIENA Common Stock shall not trade on NASDAQ on such date, the first day of trading in CIENA Common Stock on NASDAQ thereafter) by (ii) the fractional share to which such holder would otherwise be entitled. CIENA shall make available to the Exchange Agent the cash necessary for this purpose.

SECTION 1.10. Return of Exchange Fund.

Any portion of the Exchange Fund which remains undistributed to the former holders of Company Capital Stock for six months after the Effective Date shall be delivered to CIENA, upon its request, and any such former holders who have not theretofore surrendered to the Exchange Agent their Certificates in compliance herewith shall thereafter look only to CIENA for payment of their claim for shares of CIENA Common Stock, any cash in lieu of fractional shares of CIENA Common Stock and any dividends or distributions with respect to such shares of CIENA Common Stock. Neither CIENA nor the Company shall be liable to any former holder of Company Capital Stock for any such shares of CIENA Common Stock held in the Exchange Fund (and any cash, dividends and distributions payable in respect thereof) which is delivered to a public official pursuant to an official request under any applicable abandoned property, escheat or similar law.

SECTION 1.11. No Further Ownership Rights in Company Capital Stock.

All shares of CIENA Common Stock delivered upon the surrender for exchange of any Certificate in accordance with the terms hereof (including any cash paid pursuant to SECTION 1.8 or SECTION 1.10) shall be deemed to have been delivered (and paid) in full satisfaction of all rights pertaining to the Company Stock previously represented by such Certificate.

SECTION 1.12. Further Assurances.

If at any time after the Effective Time the Surviving Company shall consider or be advised that any deeds, bills of sale, assignments or assurances or any other acts or things are necessary, desirable or proper (a) to vest, perfect or confirm, of record or otherwise, in the Surviving Company, its right, title or interest in, to or under any of the rights, privileges, powers, franchises, properties or Assets of either the Company or Merger Sub or (b) otherwise to carry out the purposes of this Agreement, the Surviving Company and its proper officers and directors or their designees shall be authorized to execute and deliver, in the name and on behalf of the Company, Merger Sub, all such deeds, bills of sale, assignments and assurances and do, in the name and on behalf of the Company or Merger Sub, all such other acts and things necessary, desirable or proper to vest, perfect or confirm its right, title or interest in, to or under any of the rights, privileges, powers, franchises, properties or Assets of the Company or Merger Sub, as applicable, and otherwise to carry out the purposes of this Agreement.

ARTICLE II

REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company hereby represents and warrants to CIENA and Merger Sub as follows:

SECTION 2.1. Organization and Qualification.

The Company is a corporation duly organized, validly existing and in good standing under the laws of Delaware. The Company has the requisite power and authority to carry on its business as now being conducted and to perform the terms of this Agreement and the transactions contemplated hereby. The Company is duly qualified to conduct its business, and is in good standing, in each jurisdiction in which the ownership or leasing of its Assets or the nature of its activities in connection with the conduct of its business makes such qualification necessary or in which the failure to be so qualified and in good

standing would have a Company Material Adverse Effect. The Company has no subsidiaries or any equity interest in any Person.

SECTION 2.2. Certificate of Incorporation and Bylaws.

The Company has heretofore delivered to CIENA a complete and correct copy of the Company Certificate and the bylaws of the Company, each as amended to date. Such Company Certificate and bylaws are in full force and effect. The Company is not in violation of any of the provisions of the Company Certificate or its bylaws.

SECTION 2.3. Capitalization.

The authorized capital stock of the Company consists of 847,300,000 shares of common stock, $0.0001 par value per share, of which, 61,858,144 shares are issued and outstanding, and 152,700,000 shares of preferred stock, par value $0.0001 per share, of which 7,200,000 shares are designated as Series A Preferred Stock, all of which are issued and outstanding, 73,800,000 shares are designated as Series B Preferred Stock, 70,143,996 of which are issued and outstanding, 57,000,000 shares are designated as Series C Preferred Stock, 52,646,118 of which are issued and outstanding, 13,200,000 shares are designated as Series D Preferred Stock, 7,594,947 of which are issued and outstanding, and 1,500,000 shares are designated as Series E Preferred Stock, 270,756 of which are issued and outstanding. All of the issued and outstanding shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Series E Preferred Stock and Common Stock of the Company are owned of record by the Stockholders of the Company shown on SCHEDULE 2.3 hereto.

Except as set forth on SCHEDULE 2.3, the Company has not granted any options, warrants or other rights, or entered into any agreements, arrangements or commitments of any character relating to the issued or unissued capital stock of the Company, or obligating the Company to issue or sell any shares of capital stock of, or other equity interests in the Company, including any securities directly or indirectly convertible into or exercisable or exchangeable for any capital stock or other equity securities of the Company. Except as set forth on SCHEDULE 2.3, the Company does not have outstanding any bonds, debentures, notes or other obligations the holders of which have the right to vote (or convertible into or exercisable for securities having the right to vote) with the Stockholders of the Company on any matter. Except as set forth on SCHEDULE 2.3, there are no outstanding obligations of the Company to repurchase, redeem or otherwise acquire any shares of its capital stock or make any investment (in the form of a loan, capital contribution or otherwise) in any other Person except for outstanding rights of the Company to repurchase unvested shares of Company Common Stock, at the original purchase price paid per share, upon the holder's termination of service or employment with the Company. All of the issued and outstanding shares of the Company Capital Stock, have been duly authorized and validly issued in accordance with applicable laws and are fully paid and non-assessable and not subject to preemptive rights. Except as set forth on SCHEDULE 2.3, no shares of capital stock of the Company have been reserved for any purpose.

SECTION 2.4. Authority.

(a) The execution and delivery of this Agreement by the Company and the consummation by the Company of the transactions contemplated hereby have been duly and validly authorized by all necessary corporate action and no other corporate proceedings on the part of the Company are necessary to authorize this Agreement or to consummate the transactions contemplated hereby, except approval by holders of a majority of the shares of the Company Common Stock and the holders of a majority of the Company Preferred Stock, each voting as a separate

class (the "Company Requisite Vote"). The Company Preferred Stock is not otherwise entitled to any vote on the Merger. Assuming due authorization, execution and delivery by CIENA, this Agreement constitutes a legal, valid and binding obligation of the Company, enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors' rights generally and by the application of general principles of equity.

(b) The Board of Directors of the Company has duly and unanimously approved this Agreement and the Merger and the other transactions contemplated hereby, to which the Company is a party, and has recommended adoption thereof by the Stockholders.

SECTION 2.5. No Conflict; Required Filings and Consents.

(a) The execution and delivery of this Agreement by the Company does not, and the performance by the Company of its obligations under this Agreement will not, (i) conflict with or violate the Company Certificate or the bylaws of the Company, (ii) conflict with or violate any Law applicable to the Company, or (iii) except as set forth in SCHEDULE 2.5(a), result in any breach of or constitute a default (or an event which with notice or lapse of time or both would become a default) under any note, bond, mortgage, indenture, contract, agreement, lease, license, permit, franchise or other instrument or obligation to which it is subject.

(b) Except as set forth in SCHEDULE 2.5(b), the execution and delivery of this Agreement by the Company does not, and the performance of this Agreement by the Company will not, require any consent, approval, authorization or permit of, or filing with or notification to, any Government Entity by the Company, except for the filing of a Certificate of Merger under the DGCL and filings under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the "Hart-Scott-Rodino Act").

SECTION 2.6. Financial Statements.

Attached hereto as SCHEDULE 2.6 are (a) the audited balance sheets of the Company as of December 31, 1998 and 1999 and the audited statements of operations and cash flows for the period from July 24, 1998 (inception) to December 31, 1998 and for the fiscal year ended December 31, 1999 and (b) the unaudited balance sheet of the Company as of November 30, 2000, and the unaudited statement

of operations and cash flows for the eleven months then ended (collectively, the "Financial Statements"). The audited financial statements referred to in this SECTION 2.6 present fairly, in all material respects, the financial condition of the Company as of the respective dates and the results of operations and cash flows for the respective periods indicated and have been prepared in accordance with United States generally accepted accounting principles ("GAAP") applied on a consistent basis. Except as set forth on SCHEDULE 2.6, the unaudited financial statements referred to in this SECTION 2.6 present fairly, in all material respects, the financial condition of the Company as of the respective dates and the results of operations and cash flows for the respective periods indicated and have been prepared in all material respects in accordance with GAAP applied on a consistent basis except for the absence of required footnotes. All audited financial statements included in the Financial Statements are accompanied by unqualified audit reports of Deloitte & Touche LLP, who are independent for purposes of federal securities laws. Except as set forth on SCHEDULE 2.6 or as reflected in the unaudited balance sheet of the Company as of November 30, 2000 (the "Balance Sheet Date"), the Company has incurred no liabilities, contingent

or absolute, matured or unmatured, known or unknown, and knows of no basis for such liabilities, except for liabilities (a) not required under GAAP applied on a consistent basis with that of the preceding accounting periods to be reported on such Financial Statements, and (b) incurred in the Ordinary Course of Business.

SECTION 2.7. Absence of Certain Changes or Events.

Since the Balance Sheet Date, there has been no event or set of circumstances that resulted in or is reasonably likely to result in a Company Material Adverse Effect. Except as set forth on SCHEDULE 2.7, since the Balance Sheet Date, the Company has conducted its business in the Ordinary Course of Business, and has not (a) paid any dividend or distribution in respect of, or redeemed or repurchased any of, its capital stock other than the Company's repurchase of unvested shares, at the original purchase price paid per share, from terminating employees or consultants; (b) incurred loss of, or significant injury to, any of the material Assets, whether as the result of any natural disaster, labor trouble, accident, other casualty, or otherwise; (c) incurred, or become subject to, any material liability (absolute or contingent, matured or unmatured, known or unknown), and knows of no basis for such liabilities, except current liabilities incurred in the Ordinary Course of Business; (d) mortgaged, pledged or subjected to any Encumbrance any of the Assets; (e) sold, exchanged, transferred or otherwise disposed of any of the Assets except in the Ordinary Course of Business, or canceled any debts or claims; (f) written down the value of any Assets or written off as uncollectible any accounts receivable, except write downs and write-offs in the Ordinary Course of Business, none of which, individually or in the aggregate, are material; (g) entered into any transactions other than in the Ordinary Course of Business; (h) made any change in any method of accounting or accounting practice; or (i) made any agreement to do any of the foregoing, other than negotiations with CIENA and its representatives regarding the transactions contemplated by this Agreement. Since December 31, 1999, except as set forth on SCHEDULE 2.7, there has not been: (a) any damage, destruction or loss (whether or not covered by insurance) or any other event affecting the business or Assets of the Company; (b) any forgiveness or cancellation of debts or claims owed to the Company; (c) any increase in the compensation or benefits payable or to become payable by the Company to any of the directors, officers, consultants or employees of the Company, other than salary increases in connection with customary performance reviews and customary bonuses consistent with past practices; (d) any discharge or satisfaction of any Lien or payment of any liability or obligation by the Company other than current liabilities in the Ordinary Course of Business; or (e) any agreement to do any of the foregoing, other than negotiations with CIENA and its representatives regarding the transactions contemplated by this Agreement.

SECTION 2.8. Ownership and Condition of the Assets.

Except as set forth on SCHEDULE 2.8, the Company is the sole and exclusive legal and equitable owner of and has good and marketable title to the Assets it purports to own and such Assets are free and clear of all Encumbrances other than Permitted Encumbrances. No person or Government Entity has an option to purchase, right of first refusal or other similar right with respect to all or any part of such Assets other than in the Ordinary Course of Business. All of the personal property of the Company is in good working

order and repair, ordinary wear and tear excepted, and is suitable and adequate for the uses for which it is intended or is being used.

SECTION 2.9. Leases.

SCHEDULE 2.9 lists all leases and other agreements under which the Company

is lessee or lessor of any Asset, or holds, manages or operates any Asset owned by any third party, or under which any Asset owned by the Company is held, operated or managed by a third party. The Company is the holder of all the leasehold estates purported to be granted to such entity by the leases listed in SCHEDULE 2.9 and is the owner of all equipment, machinery and other Assets purported to be owned by the Company thereon, free and clear of all Encumbrances. Each such lease and other agreement is in full force and effect and constitutes a legal, valid and binding obligation of, and is legally enforceable against, the respective parties thereto (except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors' rights generally and by the application of general principles of equity) and grants the leasehold estate it purports to grant free and clear of all Encumbrances. All necessary governmental approvals required to be obtained by the Company with respect thereto have been obtained, all necessary filings or registrations therefor have been made, and to the Company's Knowledge, there have been no threatened cancellations thereof and are no outstanding disputes thereunder. The Company has performed in all material respects all obligations thereunder required to be performed by such entity to date. The Company is not in default in any material respect under any of the foregoing and to the Company's Knowledge, no other party is in default in any material respect under any of the foregoing, and there has not occurred any event which (whether with or without notice, lapse of time or the happening or occurrence of any other event) would, constitute a default on the part of the Company, or to the Company's Knowledge, a party other than the Company.

SECTION 2.10. Other Agreements.

(a) SCHEDULE 2.10 is an accurate list of all material contracts and agreements to which the Company is a party, or which it or any of its property is bound, (including, without limitation, joint venture agreements, employment contracts, loan agreements, bonds, mortgages, liens, pledges or other security agreements) used in connection with, or relating to the conduct of the business of the Company (the "Contracts"). Such agreements include each agreement and contract to which the Company is a party that limits the right of the Company to engage in, or to compete with any person in, any business, including each contract or agreement containing exclusivity provisions restricting the geographical area in which, or the method by which, any business may be conducted by the Company prior to the Effective Time.

(b) Except as set forth on SCHEDULE 2.10, with respect to the conduct of the business of the Company and ownership of the Assets, the Company is not:

(1) a party to any contract, purchase or sales orders, or commitment that involves a dollar amount in excess of $50,000 or extends for a period of twelve months or more;

(2) a party to any employment contracts with employees, agents or consultants;

(3) a party to any contract with sales or other agents, brokers, franchisees, distributors or dealers;

(4) a party to any partnership or joint venture agreement;

(5) a party to any lease or other occupancy or use agreements, oral or written, nor has the Company granted any options, rights of first refusal or security or other interests other than Permitted Encumbrances in or relating to the Assets or the business of the Company;

(6) a party to any agreements giving any party the right to renegotiate or require a reduction in price or refund of payments

previously made in connection with the business of the Company;

(7) a party to any agreements for the borrowing or lending of money with respect to the business of the Company and is not a party to any guaranty agreement;

(8) a party to any agreements that contain any provisions requiring the Company to indemnify any other party thereto;

(9) a party to any agreement for the sale of goods or services to any Governmental Entity;

(10) a party to any agreement granting any Person a Lien on any of the Assets other than Permitted Encumbrances;

(11) a party to any bonus, executive or deferred compensation, profit sharing, pension or retirement, stock option or stock purchase, hospitalization, insurance, medical reimbursement or other plan, agreement or arrangement or practice providing employee or executive benefits to any officer or employee or former officer or former employee; and

(12) a party to or bound by any non-competition, secrecy or confidentiality agreement relating to the business of the Company or the Assets or any other contract restricting its right to conduct the business the Company at any time, in any manner or at any place in the world, or the expansion thereof to other geographical areas, customers, suppliers or lines of business.

(c) A true and correct copy of each Contract has been made available to CIENA prior to the date hereof. Each Contract is now valid, in full force and effect and enforceable in accordance with its terms (except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors' rights generally and by the application of general principles of equity). The Company has not breached or improperly terminated any such Contract, the effect of which could have a Company Material Adverse Effect, and neither the Company nor, to the Knowledge of the Company, any third party is in default under any such Contract, the effect of which would have a Company Material Adverse Effect. There exists no condition or event which, after notice or lapse of time or both, would constitute any such breach, termination or default. Except as set forth on SCHEDULE 2.10, the Company does not know of a bid or contract proposal made by the Company that, if accepted and entered into, is likely to result in a loss to the Company.

SECTION 2.11. Real Property.

SCHEDULE 2.11 contains a list of all leasehold interests in real estate, easements, rights to access, rights-of-way and other real property interests which are owned, or are leased, used or held for use by the Company (collectively, the "Real Property"). The Real Property listed in SCHEDULE 2.11 constitutes all real property interests necessary to conduct the business and operations of the Company as now conducted. The Company is not aware of any easement or other real property interest, other than those listed in SCHEDULE 2.11, that is required, or that has been asserted by a Government Entity to be required, to conduct the business and operations of the Company. The Company has made available to CIENA true and complete copies of all deeds, leases, easements, rights-of-way and other instruments pertaining to the Real Property (including any and all amendments and other modifications of such instruments). All Real Property (including the improvements thereon) (i) is in good condition and repair other than conditions that do not adversely affect its use by the

Company and consistent with its present use, (ii) is available to the Company for immediate use in the conduct of its business and operations, and (iii) to the Knowledge of the Company complies in all material respects with all applicable building or zoning codes and in the regulations of any Government Entity having jurisdiction.

SECTION 2.12. Environmental Matters.

(a) The Company has complied in all material respects with all Environmental Laws. There are no pending or, to the Knowledge of the Company, threatened actions, suits, claims, legal proceedings or other proceedings against the Company based on any Environmental Laws, and the Company has not received any notice of any complaint, order, directive, citation, notice of responsibility, notice of potential responsibility, or information request from any Government Entity or any other person arising out of or attributable to: (i) the current or past presence at any part of the Real Property of Hazardous Materials (as defined below) or any substances that pose a hazard to human health or an impediment to working conditions; (ii) the current or past release or threatened release into the environment from the Real

Property (including, without limitation, into any storm drain, sewer, septic system or publicly owned treatment works) of any Hazardous Materials or any substances that pose a hazard to human health or an impediment to working conditions; (iii) the off-site disposal of Hazardous Materials originating on or from the Real Property; (iv) any facility operations or procedures of the Company which do not conform to requirements of the Environmental Laws; or (v) any violation of Environmental Laws at any part of the Real Property or otherwise arising from the Company's activities involving Hazardous Materials.

(b) The Company has been duly issued, and currently has all material permits, licenses, certificates and approvals required to be maintained by the Company under any Environmental Law with respect to the use of the Real Property by the Company. A true and complete list of such permits, licenses, certificates and approvals, all of which are valid and in full force and effect, is set out in SCHEDULE 2.12. Except in accordance with such permits, licenses, certificates and approvals, there has been no discharge of any Hazardous Materials or any other material regulated by such permits, licenses, certificates or approvals.

(c) None of the Real Property contains any underground storage tanks, or underground piping associated with such tanks, used currently or in the past for Hazardous Materials.

SECTION 2.13. Litigation.

Except as set forth on SCHEDULE 2.13, the Company is not directly involved in any pending action, suit, investigation, claim, arbitration or litigation and, to the Knowledge of the Company, no such matter is threatened against or involving the Company, or the Assets, at law or in equity, or before or by any court, arbitrator or Government Entity. The Company is not operating under, and is not subject to, any judgment, writ, order, injunction, award or decree of any court, judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any Government Entity. No property or Assets of the Company has been taken or expropriated by any federal, state, provincial, municipal or other Government Entity nor has any notice or proceeding with respect to thereof been given or commenced, nor is the Company aware of any intent or proposal by any Governmental Entity to give any such notice or commence any such proceeding.

SECTION 2.14. Compliance with Laws.

The Company is in compliance in all material respects with all Laws applicable to the Assets and its business and operations, including all Laws applicable to the Company's relationship with its employees.

SECTION 2.15. Intellectual Property.

(a) The Company has all right, title, interest and license rights necessary to use all intellectual property used in the business of the Company as presently conducted and, to the Company's Knowledge, has the right, title, interest and license rights to use all intellectual property that is currently anticipated by the Company to be required to carry out, the Company's product development and marketing plans through at least the next 18 months (the "Intellectual Property Rights"). There are no claims or demands against the Company by any other Person pertaining to any of such Intellectual Property Rights and no proceedings have been instituted, or are pending or to the Knowledge of the Company, threatened, which challenge the rights of the Company in respect thereof. The Company has the right to use, without infringing the rights of others, all customer lists, designs, manufacturing or other processes, computer software, systems, data compilations, research results and other information required for or incident to its products or its business as presently conducted.

(b) SCHEDULE 2.15(b) lists all patents, patent applications, registered trademarks, trademark applications and registrations and registered copyrights owned or licensed by or registered in the name of the Company or used by the Company in its business as presently conducted, and generally describes any other Intellectual Property Rights material to the business or operations of the Company. All of such patents, patent applications, registered trademarks, trademark applications and registrations and registered copyrights, if any, have been duly registered in, filed in or issued by the United States Patent and Trademark Office, the United States Register of Copyrights, or the corresponding offices of other

jurisdictions as identified on SCHEDULE 2.15(b), and have been properly maintained and renewed in accordance with all applicable provisions of law and administrative regulations in the United States and each such jurisdiction except as set forth on SCHEDULE 2.15(b).

(c) All licenses or other agreements under which the Company is granted rights in Intellectual Property Rights are listed on SCHEDULE 2.15(c). All such licenses or other Agreements are in full force and effect, there is no material default by the Company or, to the Company's Knowledge, any party thereto. To the Knowledge of the Company, the licensors under such licenses and other agreements have and had all requisite power and authority to grant the rights purported to be conferred thereby. True and complete copies of all such licenses or other Agreements, and any amendments thereto, have been furnished to CIENA.

(d) All licenses or other agreements under which the Company has granted rights to others in Intellectual Property Rights owned or licensed by the Company are listed on SCHEDULE 2.15(d). All of such licenses or other agreements are in full force and effect, there is no material default by the Company, or to the Company's Knowledge, by any party thereto. True and complete copies of all such licenses or other agreements, and any amendments thereto, have been furnished to CIENA.

(e) The Company has taken all reasonable steps it believes to be required in accordance with sound business practice to establish and preserve its ownership of all material copyright, trade secret and other proprietary rights with respect to its products and technology. The Company has required all

professional and technical employees and independent contractors having access to valuable non-public information of the Company to execute agreements under which such persons are required to maintain the confidentiality of such information and appropriately restricting the use thereof. The Company does not have Knowledge of any infringement by others of any Intellectual Property Rights of the Company.

(f) To the Knowledge of the Company, except as set forth on Schedule 2.15(f), the present business, activities and products of the Company do not infringe any Intellectual Property Rights of any other Person. No proceeding charging the Company with infringement of any Intellectual Property Rights has been filed or, to the Knowledge of the Company, is threatened or likely to be filed. To the Knowledge of the Company, there exists no unexpired patent or patent application that includes claims that would be infringed by the products, activities or business of the Company. To the Knowledge of the Company, the Company is not making any unauthorized use of any confidential information or trade secrets of any Person, including without limitation, any customer of the Company, or any past or present employee of the Company. Except for customer contracts in the Ordinary Course of Business and confidentiality agreements by Employees with former employers, neither the Company nor, to the Knowledge of the Company, any of its employees have any agreements or arrangements with any Persons other than the Company related to confidential information or trade secrets of such Persons or restricting any such employee's engagement in business activities of any nature. The activities of its employees on behalf of the Company do not violate any such agreements or arrangements known to the Company.

SECTION 2.16. Taxes and Assessments.

The Company has (i) duly and timely paid all Taxes which have become due and payable by it, and there are no agreements, waivers or other arrangements providing for an extension of time with respect to the filing of any Tax Return or the payment of any Tax; (ii) received no written notice of, nor does the Company have any Knowledge of, any notice of deficiency or assessment or proposed deficiency or assessment from any taxing Government Entity; (iii) no Knowledge of any audits pending and there are no outstanding agreements or waivers by the Company that extend the statutory period of limitations applicable to any federal, state, local, or foreign tax returns or Taxes; and (iv) not entered into any discussions with any federal, state, local, or foreign authority with respect to any Tax asserted by such authority. Since inception of the Company, the Tax Returns of the Company have never been audited by federal, state, local, or foreign authorities. There are no Liens on any property of the Company that arose in connection with any failure (or alleged failure) to pay any material Tax when due. The Company has withheld from each payment made to any of its past or present employees, officers or directors, and to any non-residents, the amount of Taxes and other deductions required to be withheld therefrom and has paid

the same (or set aside for timely payment) to the proper Tax or other receiving officers within the time required under applicable Laws. The provision for Taxes of the Company, if any, as shown in the Financial Statements is adequate for Taxes due or accrued as of the date thereof.

SECTION 2.17. Employment and Benefit Matters.

(a) Pension and Benefit Plans and Other Arrangements. SCHEDULE 2.17(a) lists each employee benefit plan, program, arrangement and contract (including, without limitation, any "employee benefit plan" as defined by Section 3(3) of ERISA), applicable to employees of the Company to which it has contributed or under which it has any material liability (collectively, the "Company Benefit

Plans"). The Company has made available to CIENA, to the extent they exist, a true and correct copy of (i) the most recent annual report (Form 5500 series) filed with the Internal Revenue Service (the "IRS") with respect to each Company Benefit Plan or similar report of the jurisdiction in which such employee benefit plan is located, (ii) each such Company Benefit Plan document, (iii) each trust agreement or other funding vehicle relating to each such Company Benefit Plan, (iv) the most recent summary plan description for each Company Benefit Plan for which a summary plan description is required, and (v) the most recent determination letter issued by the IRS with respect to any Company Benefit Plan qualified under Section 401(a) of the Code or similar report of the jurisdiction in which such employee benefit plan is located.

(b) Compliance. The Company has complied, in all material respects, with all applicable provisions of the Company Benefit Plans and the Code, ERISA, the National Labor Relations Act, Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, the Fair Labor Standards Act, the Securities Act of 1933, as amended (the "Securities Act"), and all other Laws pertaining to the Company Benefit Plans or the Company's relations with its employees, and other employee or employment related benefits, and all premiums and assessments relating to all Company Benefit Plans. The Company has no liability for any delinquent contributions within the meaning of Section 515 of ERISA (including, without limitation, related attorneys' fees, costs, liquidated damages and interest) or for any arrearages of wages. The Company has no pending unfair labor practice charges, contract grievances under any collective bargaining agreement, other administrative charges, claims, grievances or lawsuits before any court, governmental agency, regulatory body, or arbiter arising under any Law governing any Plan, and, to the Knowledge of the Company, there exist no facts that could reasonably be expected to give rise to such a claim.

(c) Collective Bargaining Agreements. There are no collective bargaining agreements applicable to the Company's employees and the Company has no duty to bargain with any labor organization with respect to any such persons. There is not pending any demand for recognition or any other request or demand from a labor organization for representative status with respect to any persons employed by the Company.

(d) Employee Information. The Company has made available to CIENA a list of the names, positions and rates of compensation of all officers, directors, employees and consultants of the Company, as of the date hereof, showing each such person's name, positions, and annual remuneration, bonuses and fringe benefits for the current fiscal year and the most recently completed fiscal year. With respect to any persons employed by the Company, the Company is in material compliance with all Laws respecting employment conditions and practices, has withheld all amounts required by any applicable Laws to be withheld from wages or any Taxes or penalties for failure to comply with any of the foregoing.

(e) Employment Practices. With respect to any persons employed by the Company, (i) the Company has not engaged in any unfair labor practice within the meaning of the National Labor Relations Act and has not violated any legal requirement prohibiting discrimination on the basis of race, color, national origin, sex, religion, age, marital status, or handicap in its employment conditions or practices; and (ii) there are no pending or, to the Knowledge of the Company, threatened unfair labor practice charges or discrimination complaints relating to race, color, national origin, sex, religion, age, marital status, or handicap against the Company before any Government Entity nor, to the Knowledge of the Company, does any basis therefor exist.

(f) Contributions to the Company Benefit Plans. All contributions to, and payments from, each Company Benefit Plan which may have been required to be made

in accordance with the terms of such plan, and, where applicable, the laws of the jurisdiction which govern such plan, have been made in a timely manner, and all material reports, returns and similar documents (including applications for approval of contributions) with respect to any Company Benefit Plan required to be filed with any Government Entity or distributed to any participant of such plan have been duly filed on a timely basis or distributed. The Assets of each Company Benefit Plan subject to Tile IV of ERISA are at least equal to the liabilities of such plan based on the actuarial assumptions utilized in the most recent valuation performed by an actuary for such plan.

(g) Immigration Laws. The Company has complied, in all material respects, with all Laws governing the employment of personnel by U.S. companies and the employment of non-U.S. nationals in the United States, including, but not limited to, the Immigration and Nationality Act 8 U.S.C. Sections 1101 et seq. and its implementing regulations.

SECTION 2.18. Transactions with Related Parties.

Except as set forth on SCHEDULE 2.18, neither any present or former officer, director, stockholder of the Company or person known by the Company to be an Affiliate of any of them, is currently a party to any transaction or agreement with the Company, including, without limitation, any agreement providing for the employment of, furnishing of services by, rental of Assets from or to, or otherwise requiring payments to, any such officer, director, stockholder or Affiliate.

SECTION 2.19. Insurance and List of Claims.

SCHEDULE 2.19 contains a list of all policies of title, property, fire, casualty, liability, life, workmen's compensation, libel and slander, and other forms of insurance of any kind relating to the business and operations of the Company in each case which are in full force and effect as of the date hereof. The Company has made available to CIENA true and correct copies of all such policies. All such policies: (a) are sufficient for compliance by the Company with all requirements of applicable Law and of all licenses, franchises and other agreements to which the Company is a party; and (b) are valid, outstanding, and enforceable policies. All premiums due and payable on all such policies have been paid. A true and complete list of all claims made since July 24, 1998 under any of the policies (or their predecessors) listed on SCHEDULE 2.19 is included on SCHEDULE 2.19.

SECTION 2.20. Brokers.

No broker, finder or investment banker is entitled to any brokerage, finder's or other fee or commission in connection with the transactions contemplated by this Agreement based upon arrangements made by or on behalf of any of the Company, except for a fee to be paid by the Company to Credit Suisse First Boston upon consummation of the Merger, the terms of which are set forth on SCHEDULE 2.20.

SECTION 2.21. Disclosure.

True and complete copies of all documents listed in the Schedules have been made available or provided to CIENA. The books of account, stock record books and other financial and corporate records of the Company, all of which have been made available to CIENA, are materially complete and correct and have been maintained in accordance with good business practices, including the maintenance of an adequate system of internal accounting controls, and such book and records are accurately reflected in the Financial Statements. The minute books of the Company contain accurate and complete records of all meetings held of, and corporate action by, the stockholders and the board of directors (and committees thereof) of the Company, and no meeting of any such stockholders or board of

directors (or committees thereof) has been held for which minutes have not been prepared and are not contained in such minute books.

SECTION 2.22. Absence of Violation.

To the Knowledge of the Company, none of the Company, nor any of its officers, directors, employees or agents (or stockholders, distributors, representatives or other persons acting on the express, implied or apparent authority of any of the Company) have paid, given or received or have offered or promised to pay, give or receive, any bribe or other unlawful payment of money or other thing of value, any extraordinary discount, or any other unlawful inducement, to or from any person, business association or governmental official or entity in the United States or elsewhere in connection with or in furtherance of the business of the Company (including, without limitation, any unlawful offer, payment or promise to pay money or other thing of value (i) to any foreign official or political party (or official thereof) for the purposes of influencing any act, decision or omission in order to assist the Company in obtaining business for or with, or directing business to, any person, or (ii) to any person, while knowing that all or a portion of such money or other thing of value will be offered, given or promised to any such official or party for such purposes). To the Knowledge of the Company, the business of the Company is not in any manner dependent upon the making or receipt of such unlawful payments, discounts or other inducements.

SECTION 2.23. Customers and Suppliers.

Except as set forth on SCHEDULE 2.23, the Company does not have Knowledge of (i) any termination or cancellation of (or any intent to terminate or cancel) the business relationship of the Company with (y) any single customer or any group of affiliated customers who represented five percent (5%) or more of the revenues or potential revenues of the business of the Company during the fiscal year ended December 31, 1999, or (z) any single supplier or any group of affiliated suppliers who provided five percent (5%) or more of the requirements of the business of the Company during the fiscal year ended December 31, 1999, or (ii) any existing condition, state of facts or circumstances that in the reasonable judgment of the Company will cause the Company or any of its customers to terminate their relationships or refuse to consider a prospective relationship. To the Knowledge of the Company, none of the business or prospective business of the Company is in any manner dependent upon the making or receipt of any payments, discounts or other inducements to any officers, directors, employees, representatives or agents of any customer.

ARTICLE III

REPRESENTATIONS AND WARRANTIES OF CIENA

CIENA represents and warrants to the Company as follows:

SECTION 3.1. Organization and Qualification.

CIENA is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. CIENA has the requisite power and authority to own, lease and operate its Assets and properties, to carry on its business as now being conducted and to perform the terms of this Agreement and the transactions contemplated hereby. CIENA is duly qualified to conduct its business, and is in good standing, in each jurisdiction where the ownership or leasing of its properties or the nature of its activities in connection with the conduct of its business makes such qualification necessary.

SECTION 3.2. Certificate of Incorporation and Bylaws.

CIENA has previously made available to Company complete and correct copies of its Certificate of Incorporation and Bylaws, as amended to date (together, the "CIENA Charter Documents"). Such CIENA Charter Documents and equivalent organizational documents of each of its subsidiaries are in full force and effect.

SECTION 3.3. Authority.

The execution and delivery of this Agreement by CIENA and the consummation by CIENA of the transactions contemplated hereby have been duly and validly authorized by all necessary corporate action and no other corporate proceedings on the part of CIENA are necessary to authorize this Agreement or to

consummate the transactions contemplated hereby. This Agreement has been duly executed and delivered by CIENA and, assuming the due authorization, execution and delivery by the Company, constitutes a legal, valid and binding obligation of CIENA, enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors' rights generally and by the application of general principles of equity.

SECTION 3.4. No Conflict; Required Filings and Consents.

(a) The execution and delivery of this Agreement by CIENA does not, and the performance by CIENA of its obligations under this Agreement will not, (i) conflict with or violate the certificate of incorporation or bylaws of CIENA, (ii) conflict with or violate any Law applicable to CIENA or its Assets and properties, or (iii) result in any breach of or constitute a default (or an event which with the notice or lapse of time or both would become a default) under any note, bond, mortgage, indenture, contract, agreement, lease, license, permit, franchise or other instrument or obligation to which CIENA is a party or by which CIENA is bound, or by which any of its properties or Assets is subject.

(b) The execution and delivery of this Agreement by CIENA does not, and the performance of this Agreement by CIENA will not, require any consent, approval, authorization or permit of, or filing with or notification to, any Government Entity other than required filings with the Securities and Exchange Commission and filings under the Hart-Scott-Rodino Act.

SECTION 3.5. Brokers.

No broker, finder or investment banker is entitled to any brokerage, finder's or other fee or commission in connection with the transactions contemplated by this Agreement based upon arrangements made by or on behalf of CIENA, except for the fee to be paid by CIENA to Morgan, Stanley & Co. Incorporated.

SECTION 3.6. Issuance of CIENA Stock.

Upon consummation of the Merger, and as of the Effective Time, the shares of CIENA Stock to be issued in the Merger will be duly and validly issued, fully paid and non-assessable, free and clear of all Encumbrances imposed by CIENA, except as contemplated hereby.

SECTION 3.7. SEC Filings.

CIENA has filed all reports required to be filed by it with the Securities

and Exchange Commission (the "SEC") during the last twelve months. The reports filed with the SEC (i) were prepared in accordance of the requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and (ii) did not, at the time they were filed, contain any untrue statements of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. Since the date of CIENA's last periodic report filed with the SEC, as of the date of this Agreement CIENA has incurred no liabilities, contingent or absolute, matured or unmatured, known or unknown that would reasonably be expected to result in a CIENA Material Adverse Effect, and there has been no event that has resulted in, or development that would reasonably be expected to result in, a CIENA Material Adverse Effect.

SECTION 3.8. Litigation.

Except as disclosed in CIENA's SEC reports filed prior to the date hereof, there is no action, suit, investigation, claim, arbitration or litigation pending or, to the Knowledge of CIENA, threatened against or involving CIENA or its Assets or the business and operations of any of CIENA, at law or in equity, or before or by any court, arbitrator or Government Entity that would reasonably be expected to result in a CIENA Material Adverse Effect. Except under proceedings that have been disclosed in CIENA's SEC reports filed prior to the date hereof, CIENA is not operating under nor is it subject to any judgment, writ, order, injunction, award or decree of any court, judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any Government Entity. No property or Assets of CIENA has been taken

or expropriated by any federal, state, provincial, municipal or other Government Entity nor has any notice or proceeding with respect to thereof been given or commenced nor is CIENA aware of any intent or proposal to give any such notice or commence any such proceeding.

SECTION 3.9. Capitalization.

The authorized capital stock of CIENA consists of 460,000,000 shares of common stock, $0.01 par value per share, of which 286,530,631 shares are issued and outstanding as of October 31, 2000 and 20,000,000 shares of Preferred Stock, par value $0.01 per share, none of which are issued and outstanding. Except for shares issuable in this Agreement, and for 30,720,965 shares issuable under outstanding stock options and 3,688,776 shares issuable under stock purchase plans and the shares issuable under the terms of the Rights Agreement, there are no options, warrants or other agreements obligating CIENA to issue or sell any shares of capital stock of, or other equity interests in CIENA. Except as disclosed in the Company's SEC reports, there are no outstanding obligations of CIENA to repurchase, redeem or otherwise acquire any shares of its capital stock. All of the issued and outstanding shares of CIENA capital stock have been duly authorized and validly issued in accordance with applicable laws and are fully paid and non-assessable and not subject to preemptive rights.

SECTION 3.10. Reorganization under Section 368(a) of the Code.

CIENA has not taken any actions which would prevent the Merger from qualifying as a reorganization under Section 368(a) of the Code.

SECTION 3.11. Absence of Certain Changes or Events.

Since October 31, 2000, there has not been: (i) any Material Adverse Effect on CIENA, (ii) any declaration, setting aside or payment of any dividend on, or other distribution (whether in cash, stock or property) in respect of any of

CIENA's capital stock, or any purchase, redemption or other acquisition by CIENA of any of CIENA's capital stock or any other securities of CIENA or any options, warrants, calls or rights to acquire any such shares or other securities except for repurchases from employees following their termination pursuant to the terms of their pre-existing stock option or purchase agreements, (iii) any split, combination or reclassification of any of CIENA's capital stock, or (iv) any material change by CIENA in its accounting methods, principles or practices, except as required by concurrent changes in GAAP and related interpretations.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES OF MERGER SUB

CIENA and Merger Sub jointly and severally represent and warrant to the Company as follows:

SECTION 4.1. Organization and Qualification.

Merger Sub is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. Merger Sub has the requisite power and authority to own, lease and operate its Assets and properties, to carry on its business as now being conducted and to perform the terms of this Agreement and the transactions contemplated hereby. Merger Sub is duly qualified to conduct its business, and is in good standing, in each jurisdiction where the ownership or leasing of its properties or the nature of its activities in connection with the conduct of its business makes such qualification necessary.

SECTION 4.2. Authority.

The execution and delivery of this Agreement by Merger Sub and the consummation by Merger Sub of the transactions contemplated hereby have been duly and validly authorized by all necessary corporate action and no other corporate proceedings on the part of Merger Sub are necessary to authorize this Agreement or to consummate the transactions contemplated hereby. This Agreement has been duly executed and delivered by Merger Sub and, assuming the due authorization, execution and delivery by the Company, constitutes a legal, valid and binding obligation of Merger Sub, enforceable in accordance with

its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws of general applicability relating to or affecting creditors' rights generally and by the application of general principles of equity.

SECTION 4.3. No Conflict; Required Filings and Consents.

(a) The execution and delivery of this Agreement by Merger Sub does not, and the performance by Merger Sub of its obligations under this Agreement will not, (i) conflict with or violate the certificate of incorporation or bylaws of Merger Sub, (ii) conflict with or violate any Law applicable to Merger Sub or its Assets and properties, or (iii) result in any breach of or constitute a default under any note, bond, mortgage, indenture, contract, agreement, lease, license, permit, franchise or other instrument or obligation to which Merger Sub is a party or by which Merger Sub is bound, or by which any of its properties or Assets is subject.

(b) The execution and delivery of this Agreement by Merger Sub does not, and the performance of this Agreement by Merger Sub will not, require any consent, approval, authorization or permit of, or filing with or notification to, any Government Entity, except for the filing of the Certificate of Merger

under the DGCL.

ARTICLE V

CONDUCT PENDING CLOSING

SECTION 5.1. Conduct of Business Pending Closing.

(a) From the date hereof until the Closing, the Company shall:

(i) maintain its existence in good standing;

(ii) maintain the character of its business and properties and conduct its business in the ordinary and usual manner consistent with past practices, except as expressly permitted by this Agreement;

(iii) maintain business and accounting records consistent with past practices; and

(iv) use its best efforts (a) to preserve its business intact, (b) to keep available to the Company the services of its present officers and employees, and (c) to preserve for the Company the goodwill of its suppliers, customers and others having business relations with the Company.

(b) During the period from the date hereof and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Closing, CIENA shall not do any of the following and shall not permit its subsidiaries to do any of the following:

(i) Declare, set aside, or pay any dividends or make any other distributions (whether in cash, stock, equity securities or property) in respect to CIENA's capital stock, except where (A) an adjustment is made to the exchange ratio in accordance with SECTION 1.6 or (B) the holders of Company Capital Stock will otherwise receive an equivalent, proportional dividend or distribution (based on the Exchange Ratio, as adjusted pursuant to SECTION 1.6) in connection with the Merger as if they had been holders of CIENA Common Stock on the record date for such dividend or distribution; or

(ii) Agree in writing or otherwise take any of the actions described in SECTION 5.1(b)(i) above.

SECTION 5.2. Prohibited Actions Pending Closing.

Unless otherwise provided for herein or otherwise necessary in order to comply with the Company's obligations hereunder or approved by CIENA in writing, from the date hereof until the Closing, the Company shall not:

(a) amend or otherwise change the Company Certificate or the bylaws of the Company;

(b) issue or sell or authorize for issuance or sale (other than any issuance of Company Capital Stock upon the exercise of any outstanding option or warrant to purchase Company Capital Stock which option or warrant was issued prior to the date hereof in accordance with the terms of the relevant stock option or warrant agreement and the terms of which are disclosed on SCHEDULE 2.3 or which are subsequently issued in accordance with the succeeding limitations of this SECTION 5.2(b)), or grant any options or make other agreements with respect to, any shares of its capital

stock or any other of its securities, except for (i) stock options to purchase Company Common Stock which may be granted under the Company's 1998 Stock Plan in accordance with past practices (including promotion and new hire grants), provided the exercise price per share of each such option is not less than the fair market value per share of Company Common Stock on the grant date, and (ii) those provisions of the agreement with the Exchange Agent which provisions are in furtherance of this Agreement;

(c) declare, set aside, make or pay any dividend or other distribution, payable in cash, stock, property or otherwise with respect to any of its capital stock;

(d) reclassify, combine, split, subdivide or redeem, purchase or otherwise acquire, directly or indirectly, any of its capital stock except for repurchases of unvested shares in connection with the termination of any employee pursuant to stock option or purchase agreements;

(e) incur any indebtedness for borrowed money or issue any debt securities or assume, guarantee or endorse, or otherwise as an accommodation become responsible for, the obligations of any Person, or make any loans or advances, except in the Ordinary Course of Business, consistent with past practice, or modify, amend or waive in any respect the terms and conditions of the Company's 4 1/2% Convertible Subordinated Notes Due August 15, 2005 or the Indenture related thereto;

(f) (i) acquire (including, without limitation, by merger, consolidation, or acquisition of stock or Assets) any corporation, partnership, other business organization or any division thereof or any material amount of Assets;

(ii) enter into any contract or agreement other than in the Ordinary Course of Business, consistent with past practice; or

(iii) authorize any capital commitment or capital lease which is in excess of $500,000 or capital expenditures which are, in the aggregate, in excess of $500,000;

(g) mortgage, pledge or subject to Encumbrance, any of its Assets or properties or agree to do so;

(h) assume, guarantee or otherwise become responsible for the obligations of any other Person or agree to so do;

(i) enter into or agree to enter into any employment agreement (other than offer letters and letter agreements entered into in the Ordinary Course of Business);

(j) increase the compensation payable or to become payable to its officers or employees, or grant any severance or termination pay to, or enter into any severance agreement with any director, officer or other employee of the Company, or establish, adopt, enter into or amend any collective bargaining, bonus, profit sharing, thrift, compensation, stock option, restricted stock, pension, retirement, deferred compensation, employment, termination, severance or other plan, agreement, trust, fund, policy or arrangement for the benefit of any such director, officer or employee, except that (i) the Company

may make reasonable salary increases in connection with the customary officer and employee performance review process and pay customary bonuses

consistent with past practices and (ii) the Company may make any amendments to existing employee benefit plans to the extent necessary to maintain their compliance with applicable Laws;

(k) take any action to change in any respect its accounting policies or procedures (including, without limitation, procedures with respect to the payment of accounts payable and collection of accounts receivables);

(l) make any Tax election or settle or compromise any federal, state, local or foreign income material Tax liability in excess of $50,000;

(m) settle or compromise any pending or threatened suit, action or claim;

(n) pay, discharge or satisfy any claim, liability or obligation (absolute, accrued, asserted or unasserted, contingent or otherwise), other than the payment, discharge or satisfaction, in the Ordinary Course of Business and consistent with past practice, of liabilities reflected or reserved against in the latest balance sheet included in the Financial Statements provided to CIENA or subsequently incurred in the Ordinary Course of Business and consistent with past practice in amounts not in excess of $100,000;

(o) sell, assign, transfer, license or sublicense (other than in the Ordinary Course of Business and consistent with past practice), pledge or otherwise encumber any of the Intellectual Property Rights; or

(p) announce an intention, commit or agree to do any of the foregoing.

Notwithstanding the foregoing, the Company may amend its 1998 Stock Plan to provide for acceleration of vesting of twenty-five percent (25%) of the then unvested shares held by each holder of options or stock issued thereunder upon the occurrence of a change in control event (excluding the transactions contemplated by this Agreement), similar to the manner and event described in CIENA's 1999 Non-Officer Stock Option Plan.

SECTION 5.3. Access; Documents; Supplemental Information.

(a) From and after the date hereof until the Closing, the Company shall afford, and, with respect to clause (ii) below, shall use its reasonable best efforts to cause the independent certified public accountants for the Company to afford, (i) to the officers, independent certified public accountants, counsel and other representatives of CIENA and Merger Sub, upon reasonable notice, free and full access at all reasonable times to the properties, books and records including tax returns filed and those in preparation of the Company and the right to consult with the officers, employees, accountants, counsel and other representatives of the Company in order that CIENA and Merger Sub may have full opportunity to make such investigations as it shall deem necessary of the operations, properties, business, financial condition and prospects of the Company, (ii) to the independent certified public accountants of CIENA and Merger Sub, free and full access at all reasonable times to the work papers and other records of the accountants relating to the Company, and (iii) to CIENA and Merger Sub and their respective representatives, such additional financial and operating data and other information as to the properties, operations, business, financial condition and prospects of the Company as CIENA and Merger Sub shall from time to time require.

(b) From the date of this Agreement through and including the Closing, the Company will furnish to CIENA copies of any notices, documents, requests, court papers, or other materials received from any governmental agency or any other third party with respect to the transactions contemplated by this Agreement.

SECTION 5.4. No Solicitation.

The Company shall not, nor shall it authorize or permit any of its Affiliates or any officer, director, employee, investment banker, attorney or other adviser or representative of the Company or any of its

Affiliates to (a) solicit, initiate, or encourage the submission of, any Acquisition Proposal (as hereinafter defined), (b) enter into any agreement with respect to any Acquisition Proposal or (c) participate in any discussions or negotiations regarding, or furnish to any Person any information for the purpose of facilitating the making of, or take any other action to facilitate any inquiries or the making of, any proposal that constitutes, or may reasonably be expected to lead to, any Acquisition Proposal other than the transactions contemplated hereby; provided, however, that nothing contained in this Agreement shall prevent the Company or its Board of Directors at any time prior to the time the Merger has been approved by the Company's stockholders from: (a) providing information in response to a request therefor by a Person who has delivered to the Board of Directors of the Company an unsolicited bona fide written Acquisition Proposal if the Board of Directors of Company receives from the Person so requesting such information an executed confidentiality agreement the terms of which are (without regard to the terms of the Acquisition Proposal) (i) no less favorable to the Company and (ii) no less restrictive on the Person requesting such information than those contained in the Confidentiality Agreement; or (b) engaging in negotiations or discussions with a Person who has delivered to the Board of Directors of the Company an unsolicited bona fide written Acquisition Proposal; if, and only to the extent that, in each such case referred to in clause (a) or (b) above, (x) the Board of Directors of the Company determines in good faith (after reviewing the advice of its financial advisor and outside legal counsel) that the Acquisition Proposal, if accepted, is likely to be consummated, (y) the Board of Directors of the Company determines in good faith (after reviewing the advice of its financial adviser) that the Acquisition Proposal would, if consummated, result in a transaction that is more favorable to the Company's stockholders (with respect to financial terms and, if applicable, strategic benefit, taking into account the long-term value to stockholders of the Aggregate Share Consideration and the strategic nature of the proposed Merger) than the Merger (any Acquisition Proposal as to which such determinations are made being referred to in this Agreement as a "Superior Proposal") and (z) the Board of Directors determines in good faith (after receiving advice of outside legal counsel) that taking such action is required or necessary in the exercise of its fiduciary duties under applicable law. Without limiting the foregoing, it is understood that any violation, of which the Company or any of its Affiliates had Knowledge at the time of such violation, of the restrictions set forth in the immediately preceding sentence by any officer, director, employee, investment banker, attorney, employee, or other adviser or representative of the Company or any of its Affiliates, whether or not such Person is purporting to act on behalf of the Company or any of its Affiliates or otherwise, shall be deemed to be a breach of this SECTION 5.4 by the Company and its Affiliates. Nothing in this SECTION 5.4 shall permit the Company to enter into any agreement, orally or in writing, with respect to an Acquisition Proposal during the term of this Agreement (other than a confidentiality agreement as described above). The Company promptly shall advise CIENA of any Acquisition Proposal (including the terms thereof and the identity of the person making the Acquisition Proposal) and inquiries with respect to any Acquisition Proposal and shall keep CIENA informed on a current basis of the status of any discussions regarding a n Acquisition Proposal. "Acquisition Proposal" means any proposal for a merger or other business combination involving the Company or any proposal or offer to acquire in any manner, directly or indirectly, 5% or more (for purposes of this SECTION 5.4) or 30% or more (for purposes of SECTION 8.5) of the equity securities, voting securities or Assets of the Company (except in connection with employee stock option grants

or warrant exercises). The Company will, and except as otherwise provided in this Agreement, will cause its Affiliates to, immediately cease and cause to be terminated any activities, discussions or negotiations existing as of the date of this Agreement with any Persons (other than CIENA and its representatives) conducted heretofore with respect to any Acquisition Proposal, and will not pursue, directly or indirectly, any Acquisition Proposal received on or prior to the date of this Agreement from any Person (other than CIENA and its representatives). The Company shall not release any third party from, or waive any provisions of, any confidentiality or standstill agreement relating to an Acquisition Proposal to which such party is a party.

SECTION 5.5. Information Supplied.

Each of the Company and CIENA agree that none of the information supplied or to be supplied by it or them for inclusion or incorporation by reference in (a) the Registration Statement on Form S-4 to be filed with the SEC by CIENA in connection with the issuance of shares of CIENA Common Stock in the

Merger (including the proxy statement and prospectus (the "Proxy Statement/Prospectus") constituting a part thereof) (the "S-4 Registration Statement") will, at the time the S-4 Registration Statement becomes effective under the Securities Act, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, not misleading, and (b) the Proxy Statement/Prospectus and any amendment or supplement thereto will, at the date of mailing to the Company's stockholders and at the times of the meeting of the Company's stockholders to be held in connection with the Merger, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

SECTION 5.6. Stockholder Meeting.

Whether or not the Board of Directors of the Company shall take any action permitted by the third sentence of this SECTION 5.6, the Company shall cause a meeting of its stockholders (the "Stockholders' Meeting") to be duly called and held as soon as practicable after the date of this Agreement for the purpose of voting on the adoption of this Agreement and for the purpose of soliciting holders of Company Preferred Stock to vote in favor of an automatic conversion of the Company Preferred Stock immediately prior to the Closing in accordance with Article IV.B. Section 3(b)(iii) of the Company Certificate, or, at the request of and in the sole discretion of CIENA, shall solicit written consents of stockholders for such purpose. The Board of Directors of the Company shall (i) include in the Proxy Statement/Prospectus prepared therefor its recommendation in favor of adoption of the Merger Agreement (the "Board Recommendation") and (ii) use its best efforts to obtain the necessary vote in favor of the adoption of this Agreement by its stockholders. The Board of Directors of the Company shall not withdraw, amend, modify or qualify in a manner adverse to CIENA the Board Recommendation (or announce its intention to do so), except that, prior to the receipt of the Company Requisite Vote, the Board of Directors of the Company shall be permitted to withdraw, amend, modify or materially qualify in a manner adverse to CIENA the Board Recommendation, following three Business Days' prior notice to CIENA, but only if (A) the Company has complied in all respects with this Agreement, including SECTION 5.4, and (B) after receiving advice of its outside legal counsel, the Board of Directors determines in good faith that the Merger is not in the best interests of the stockholders of the Company and that, therefore, it is required to withdraw, amend or modify the Board Recommendation in order to satisfy its fiduciary duties to the stockholders of the Company under applicable law.

SECTION 5.7. Filings; Other Actions; Notification.

(a) CIENA shall prepare and file with the SEC the S-4 Registration Statement as promptly as practicable. CIENA shall use its reasonable best efforts to have the S-4 Registration Statement declared effective under the Securities Act as promptly as practicable after such filing, and promptly thereafter mail the Prospectus to the stockholders of the Company. CIENA shall also use its reasonable best efforts to obtain prior to the effective date of the S-4 Registration Statement all necessary state securities law or "blue sky" permits and approvals required in connection with the Merger and to consummate the other transactions contemplated by this Agreement. CIENA further agrees to file following the Effective Time a post-effective amendment to the S-4 Registration Statement to convert it to a Form S-3 shelf registration covering resales of CIENA Common Stock by affiliates of the Company.

(b) The Company and CIENA each shall from the date hereof until the Effective Time cooperate with the other and use its reasonable best efforts to cause to be done all things necessary, proper or advisable on its part under this Agreement and applicable Laws to consummate and make effective the Merger and the other transactions contemplated by this Agreement as soon as practicable, including preparing and filing as promptly as practicable all documentation to effect all necessary notices, reports and other filings and to obtain as promptly as practicable all consents, registrations, approvals, permits and authorizations necessary or advisable to be obtained from any third party and/or any Governmental Entity, including filings under the Hart-Scott-Rodino Act, in order to consummate the Merger or any of the other transactions contemplated by this Agreement.

(c) The Company and CIENA each shall, upon request by the other, furnish the other with all information concerning itself, its Subsidiaries, directors, executive officers and stockholders and such other matters as may be reasonably necessary or advisable in connection with the Prospectus, the S-4 Registration Statement or any other statement, filing, notice or application made by or on behalf of CIENA, the Company or any of their respective Subsidiaries to any third party and/or any Governmental Entity in connection with the Merger and the transactions contemplated by this Agreement.

(d) The Company and CIENA each shall keep the other apprised of the status of matters relating to completion of the transactions contemplated hereby.

(e) Prior to the Closing Date, the Company shall take all steps necessary to address the items set forth on Schedule 5.7(e) to CIENA's reasonable satisfaction.

SECTION 5.8. Comfort Letters.

The Company shall cause to be delivered to CIENA a "comfort" letter of Deloitte & Touche LLP, the Company's independent public accountants, dated as of the Effective Date of the S-4 Registration Statement, and addressed to CIENA and the Company, in form and substance reasonably satisfactory to CIENA and reasonably customary in scope and substance for letters delivered by independent public accounts in connection with transactions such as those contemplated by this Agreement.

SECTION 5.9. NASDAQ Listing.

As soon as practicable after the date hereof and in any event prior to the Effective Time, CIENA shall list on NASDAQ the shares of CIENA Common Stock to be issued in connection with the Merger and upon exercise of Substitute Options

and Warrants.

SECTION 5.10. Company Stock Options; Company Warrants.

(a) Concurrent with the Effective Time, each stock option to purchase Company Common Stock (the "Company Stock Options") which is outstanding immediately prior to the Effective Time pursuant to the Company's 1998 Stock Plan in effect on the date hereof (the "Stock Plan") shall together with each such Stock Plan, be assumed by CIENA and shall thereby be converted into an option (an "Assumed Option") to purchase the number of shares of CIENA Common Stock (decreased to the nearest full share) determined by multiplying (i) the number of shares of Company Common Stock subject to such Company Stock Option immediately prior to the Effective Time by (ii) the Common Stock Exchange Ratio, at an exercise price per share of CIENA Common Stock (increased to the nearest whole cent) equal to the exercise price per share of Company Common Stock in effect under such Company Stock Options immediately prior to the Effective Time divided by the Common Stock Exchange Ratio. Except for the foregoing adjustments and the Rights, all the terms and conditions in effect for each Assumed Option immediately prior to the Effective Time shall continue in effect following the assumption of such option in accordance with this Agreement. The Company agrees that it will not grant any stock appreciation rights or limited stock appreciation rights and will not permit cash payments to holders of Company Stock Options in lieu of the substitution therefor of Assumed Options. The Company shall take all actions necessary to assure that no acceleration of vesting of Assumed Options shall occur solely as a result of the Merger.

(b) It is the intention of the parties that the Company Stock Options so assumed by CIENA shall qualify, immediately after the Effective Time, as "Incentive Stock Options" under Section 422 of the Code to the same extent those options qualified as such Incentive Stock Options immediately prior to the Effective Time. Accordingly, the adjustments provided herein with respect to any "Company Stock Options" that are Incentive Stock Options shall be and are intended to be effected in a manner which is consistent with Section 424(a) of the Code.

(c) CIENA shall take all corporate action necessary to reserve for issuance a sufficient number of shares of CIENA Common Stock for delivery upon the exercise of the Assumed Options and the Company Warrants. As soon as practicable after the Effective Time, CIENA shall deliver to the holders of Company Stock Options appropriate notices setting forth such holders' rights pursuant to CIENA's

stock option plans and the agreements evidencing the grants of such Assumed Options and that such Assumed Options shall continue in effect on the same terms and conditions as the Company Stock Options (subject to the adjustment set forth in this SECTION 5.10).

(d) As soon as practicable after the Effective Time, CIENA shall prepare and file with the SEC a registration statement on Form S-8 (or another appropriate form) registering a number of shares subject to the Assumed Options. Such registration statement shall be kept effective (and the current status of the prospectus required thereby shall be maintained in accordance with the relevant requirements of the Securities Act and the Exchange Act) at least for so long as any Assumed Options remain outstanding.

(e) Concurrent with the Effective Time, each warrant to purchase Company Common Stock that is then outstanding and exercisable described in SCHEDULE 2.3 (each, a "Company Warrant"), without any action on the part of the holder, shall be deemed assumed by CIENA and shall constitute a warrant to acquire, on the same terms and conditions as were applicable under such Company Warrant, a

number of shares of CIENA Common Stock equivalent to (A) the number of Shares that could have been purchased immediately prior to the Effective Time under such Company Warrant multiplied by (B) the Common Stock Exchange Ratio (rounded down to the nearest whole number), at a price per share of CIENA Common Stock (rounded up to the nearest whole cent) equal to the exercise price per share pursuant to such Company Warrant immediately prior to the Effective Time divided by the Common Stock Exchange Ratio. At or prior to the Effective Time, the Company shall make all necessary arrangements with respect to the Company Warrants to permit the assumption of the unexercised Company Warrants by CIENA pursuant to this SECTION 5.10(e).

SECTION 5.11. Notification of Certain Matters.

The Company shall give prompt notice to CIENA, and CIENA shall give prompt notice to the Company, of (a) the occurrence, or non-occurrence, of any event which would be likely to cause (i) any representation or warranty contained in this Agreement to be untrue or inaccurate in any material respect or (ii) any covenant, condition or agreement contained in this Agreement not to be complied with or satisfied; and (iii) any failure of the Company, CIENA or Merger Sub, as the case may be, to comply with or satisfy any covenant, condition or agreement to be complied with or satisfied by it hereunder; provided that the delivery of any notice pursuant to this SECTION 5.11 shall not limit or otherwise affect the remedies available to the party receiving such notice.

SECTION 5.12. Reorganization.

Each of CIENA and the Company shall use its reasonable best efforts to cause the business combination to be effected by the Merger to be qualified as a "reorganization" described in Section 368(a) of the Code. CIENA shall take no action following the Effective Time that would have the effect of causing the Merger to fail to so qualify.

SECTION 5.13. Indemnification.

From and after the Effective Time for not less than (i) six (6) years, in the case of acts or omissions under or pursuant to Section 174 of the DCGL and Section 8109 of Title 10 of the Delaware Code Annotated, and (ii) four (4) years for all other acts or omissions, after the Effective Time, CIENA shall fulfill and honor in all respects the obligations of the Company to indemnify each person who is or was a director or officer of the Company against losses such person may incur based upon matters existing or occurring prior to the Effective Time pursuant to any applicable indemnification agreements and any indemnification and exculpation provision of the Company Certificate or its bylaws as each is in effect on the date hereof.

SECTION 5.14. Actions by the Parties.

Upon the terms and subject to the conditions set forth in this Agreement, each of the parties hereto will use its reasonable best efforts to take or cause to be taken all actions, and to do, or cause to be done, all things necessary, proper or advisable under applicable law and regulations to consummate and make effective in the most expeditious manner practicable, the transactions contemplated by this Agreement

including (i) the obtaining of all necessary actions and non-actions, waivers and consents, if any, from any governmental agency or authority and the making of all necessary registrations and filings and the taking of all reasonable steps as may be necessary to obtain an approval or waiver from, or to avoid an action or proceeding by any governmental agency or authority; (ii) the obtaining of all necessary consents, approvals or waivers from any other Person; (iii) the

defending of any claim, investigation, action, suit or other legal proceeding, whether judicial or administrative, challenging this Agreement or the consummation of the transactions contemplated hereby; and (iv) the execution of additional instruments necessary to consummate the transactions contemplated by this Agreement. Each party will promptly consult with the other and provide necessary information (including copies thereof) with respect to all filings made by such party with the any agency or authority in connection with this Agreement and the transactions contemplated hereby.

ARTICLE VI

CONDITIONS PRECEDENT

SECTION 6.1. Conditions Precedent to Each Party's Obligation to Effect the Merger.

The respective obligations of each party hereto to effect the Merger shall be subject to the fulfillment or satisfaction, prior to or on the Closing Date of the following conditions:

(a) Approvals. All authorizations, consents, orders, declarations or approvals of, or filings with, or terminations or expirations of waiting periods imposed by (including without limitation, expiration of any Hart-Scott-Rodino waiting period), any governmental or regulatory authority, domestic or foreign, which the failure to obtain, make or occur would have the effect of making the Merger or any of the transactions contemplated hereby illegal or would have a CIENA Material Adverse Effect or a Company Material Adverse Effect, assuming the Merger had taken place, shall be in effect.

(b) No Injunction. No temporary restraining order, preliminary or permanent injunction or other order from any court of competent jurisdiction or other governmental or regulatory authority prohibiting or preventing the consummation of the Merger or any of the transactions contemplated hereunder shall be in effect.

(c) S-4. The S-4 Registration Statement shall have become effective under the Securities Act. No stop order suspending the effectiveness of the S-4 Registration Statement shall have been issued, and no proceeding for that purpose shall have been initiated or be threatened, by the SEC.

(d) Stockholder Approval. The Merger shall have been duly approved by holders of Company Capital Stock as required by the Company Certificate.

(e) NASDAQ Listing. The CIENA Common Stock to be issued in the Merger shall have been approved for listing on NASDAQ.

SECTION 6.2. Conditions Precedent to Obligations of CIENA.

The obligations of CIENA to effect the Merger shall be subject to the fulfillment or satisfaction, prior to or on the Closing Date, of each of the following conditions precedent:

(a) Performance of Obligations; Representations and Warranties; Dissenters.

(i) The Company shall have performed in all material respects and complied in all material respects with all agreements and conditions contained in this Agreement that are required to be performed or complied with by it prior to or at the Closing. Each of the Company's representations and warranties contained in ARTICLE II of this Agreement shall be true and correct in all material respects, in each case, on and

as of the Closing with the same effect as though such representations and warranties were made on and as of the Closing, except for changes permitted by this Agreement and except to the extent that such representations and warranties expressly relate to an earlier date, in which case such representations and warranties shall be as

of such earlier date. CIENA shall have received a certificate dated the Closing Date and signed by the Chairman, President or a Vice-President of the Company, certifying that, the conditions specified in this SECTION 6.2(a) have been satisfied;

(ii) there shall have been no changes that have had or are reasonably likely to have a Company Material Adverse Effect since the date of this Agreement, except for changes contemplated by this Agreement; and

(iii) holders of shares of Company Capital Stock representing in excess of 2.0% of the issued and outstanding Company Capital Stock immediately prior to the Effective Time shall not have demanded or exercised appraisal rights under Section 262 of the DGCL.

(b) Consents. The Company shall have received consents or waivers, in form and substance reasonably satisfactory to CIENA, from the other parties to the contracts, leases or agreements to which the Company is a party and which are set forth on SCHEDULE 6.2(b).

(c) Non-Competition Agreements. Each of the Non-Competition Agreements shall be in full force and effect.

(d) Tax Opinion. CIENA shall have received the opinion of Hogan & Hartson L.L.P., counsel to CIENA, dated the Closing Date, to the effect that the Merger will not result in taxation to CIENA or Merger Sub under the Code. In rendering such opinion, Hogan & Hartson L.L.P. shall require delivery of and rely upon representation letters delivered by CIENA, Merger Sub and the Company in customary form.

(e) Termination of Agreements. The Right of First Refusal and Cosale Agreement and the Registration Rights Agreement shall be inapplicable to this transaction and shall have been terminated.

(f) Escrow Agreement. The Stockholder Representative shall have executed and delivered the Escrow Agreement in the form attached hereto as EXHIBIT B, on behalf of all stockholders other than the holders of Dissenting Shares.

SECTION 6.3. Conditions Precedent to the Company's Obligations.

The obligations of the Company to effect the Merger shall be subject to the fulfillment or satisfaction, prior to or on the Closing Date, of each of the following conditions precedent:

(a) Performance of Obligations; Representations and Warranties. CIENA and Merger Sub shall have performed in all material respects and complied in all material respects with all agreements and conditions contained in this Agreement that are required to be performed or complied with by them prior to or at the Closing. Each of the representations and warranties of CIENA and Merger Sub contained in ARTICLES III and IV of this Agreement shall be true and correct in all material respects, in each case, on and as of the Closing with the same effect as though such representations and

warranties were made on and as of the Closing except for changes permitted by this Agreement and except to the extent that such representations and warranties expressly relate to an earlier date, in which case such representations and warranties shall be as of such earlier date. The Company shall have received certificates dated the Closing Date and signed by the Chairman, President or a Senior Vice-President of CIENA, certifying that the conditions specified in this SECTION 6.3(a) have been satisfied.

(b) Opinions of Counsel. The Company shall have received (i) the favorable written opinion dated the Closing Date of counsel to CIENA and Merger Sub, in form satisfactory to the Company, as to the legal validity of the shares of CIENA stock to be issued in the Merger, and (ii) the opinion of Brobeck, Phleger & Harrison LLP, counsel to the Company, dated the Closing Date, to the effect that the Merger will not result in taxation to the Company's Stockholders under the Code. In rendering such opinion, Brobeck, Phleger & Harrison LLP shall require delivery of and rely upon representation letters delivered by CIENA, Merger Sub and the Company in customary form.

(c) CIENA and Merger Sub shall have executed and delivered the Escrow Agreement in the form attached hereto as EXHIBIT B.

ARTICLE VII

SURVIVAL OF REPRESENTATIONS AND WARRANTIES;
INDEMNIFICATION

SECTION 7.1. Survival of Representations and Warranties.

All of the Company's, CIENA's and Merger Sub's representations and warranties representations and warranties in this Agreement or in any instrument delivered pursuant to this Agreement shall survive the Merger and continue until the date which is one year following the Closing Date.

SECTION 7.2. Indemnification; Escrow Agreements.

(a) Indemnification. CIENA, Merger Sub and their respective officers, directors and affiliates (the "Indemnified Parties") shall be indemnified and held harmless by the Stockholders (other than those dissenting stockholders exercising rights of appraisal under Section 262 of the DGCL who do not receive CIENA Common Stock in the Merger) against all claims, losses, liabilities, damages, deficiencies, costs and expenses, including reasonable attorneys' fees and expenses of investigation (hereinafter individually a "Loss" and collectively "Losses") incurred by the Indemnified Parties directly or indirectly as a result of: (i) any inaccuracy or breach of a representation or warranty of the Company contained in this Agreement or contained in a certificate of any officer of the Company delivered pursuant to this Agreement, or (ii) any failure by the Company to perform or comply with any covenant or agreement contained in this Agreement. The Stockholders shall not have any right of contribution from the Company with respect to any Loss claimed by CIENA after the Effective Time. Nothing herein shall limit the liability of the Company for any breach of any representation, warranty, covenant or agreement if the Merger is not consummated.

(b) Indemnification Threshold and Limitations.

(i) Except as set forth below, there shall be no liability for any Stockholder under SECTION 7.2 unless the aggregate amount of Losses incurred by the Indemnified Parties exceeds $1,000,000 (the

"Indemnification Threshold") in the aggregate, in which event the entire aggregate amount of the Losses shall be indemnifiable pursuant to SECTION 7.2(a).

(ii) Subject to SECTIONS 7.2(a) and 7.5, the Indemnified Parties sole and exclusive remedy for any inaccuracy or breach of a representation or warranty of the Company or any failure by the Company to perform or comply with any covenant and agreement in this Agreement or any agreement, instrument or certificate delivered pursuant to or in connection therewith shall be indemnification pursuant to this ARTICLE VII. Subject to SECTIONS 7.2(a) and 7.5, the liability of the Stockholders under and the right of the Indemnified Parties to seek such indemnification shall be limited solely and exclusively to the Escrow Amount (as defined in SECTION 7.2(c)).

(c) Satisfaction of Indemnification Obligations; Escrow Fund.

Each of the Stockholders receiving CIENA Common Stock in the Merger will be deemed to have received and deposited with the Escrow Agent (as defined below) the Escrow Amount (plus any additional shares as may be issued upon any stock split, stock dividend or recapitalization effected by CIENA after the Effective Time with respect to the Escrow Amount). The Escrow Amount will be deposited with and will be held by an institution mutually acceptable to CIENA and the Stockholders' Representative (as defined in SECTION 7.3) as Escrow Agent (the "Escrow Agent"), such deposit to constitute an escrow fund (the "Escrow Fund") to be governed by the terms set forth in the Escrow Agreement. Payment of any Loss from the Escrow Amount shall be taken ratably from the Escrow Shares (as defined in the Escrow Agreement). Each payment for Losses satisfied by shares of the Escrow

Amount which are subject to repurchase shall be in proportion to the number of shares vested and unvested (including with respect to vesting dates).

(d) Liability for Disclosed Matter.

Notwithstanding any other provision of this ARTICLE VII and without regard to any breach by the Company of a representation, warranty, covenant or agreement contained herein, any claim for fees owed and any related liability resulting from a claim for payment with respect to the matter disclosed as Item 42 on SCHEDULE 2.10(a) (referenced also as the second item listed on SCHEDULE 2.20) shall be satisfied in full out of the Escrow Amount and the Indemnification Threshold shall be wholly inapplicable to any such claim.

SECTION 7.3. Stockholder's Representative.

(a) In the event the Stockholders approve the Merger, effective upon such vote and without any further action by the Stockholders, Douglas Carlisle will be appointed as agent and attorney-in-fact (the "Stockholders' Representative") for each Stockholder receiving CIENA Common Stock in the Merger, for and on behalf of the Stockholder. The Stockholders' Representative shall have full power and authority to represent all of the Stockholders and their successors with respect to all matters arising under this Agreement and the Escrow Agreement and all actions taken by the Stockholders' Representative hereunder and thereunder shall be binding upon all such Stockholders and their successors as if expressly confirmed and ratified in writing by each of them. The Stockholders' Representative shall take any and all actions which he believes are necessary or appropriate under this Agreement and the Escrow Agreement for and on behalf of the Stockholders, as fully as if the Stockholders were acting on their own behalf, including, without limitation, defending all indemnity claims against the Stockholders pursuant to SECTION 7.2 of this Agreement (an

"Indemnity Claim"), consenting to, compromising or settling all Indemnity Claims, conducting negotiations with CIENA and its agents regarding such claims, dealing with CIENA and the Escrow Agent under this Agreement and the Escrow Agreement with respect to all matters arising under this Agreement and the Escrow Agreement, taking any and all other actions specified in or contemplated by this Agreement and the Escrow Agreement, and engaging counsel, accountants or other Stockholders' Representatives in connection with the foregoing matters. Without limiting the generality of the foregoing, the Stockholders' Representative shall have full power and authority to interpret all the terms and provisions of this Agreement and the Escrow Agreement and to consent to any amendment hereof or thereof on behalf of all such Stockholders and such successors. Notwithstanding the foregoing, each Stockholder shall have the right to exercise any voting rights appertaining to the Escrow Shares.

(b) Indemnification of Stockholders' Representative. The Stockholders' Representative may act upon any instrument or other writing believed by the Stockholders' Representative in good faith to be genuine and to be signed or presented by the proper person and shall not be liable in connection with the performance by him of his duties pursuant to the provisions of the Escrow Agreement, except for his own willful default or gross negligence. The Stockholders' Representative shall be, and hereby is, indemnified and held harmless, jointly and severally, by the Stockholders from all losses, costs and expenses (including attorneys' fees) that may be incurred by the Stockholders' Representative as a result of the Stockholders' Representative's performance of his duties under this Agreement and the Escrow Agreement, provided that the Stockholders' Representative shall not be entitled to indemnification for losses, costs or expenses that result from any action taken or omitted by the Stockholders' Representative as a result of his willful default or gross negligence and provided, further, that each Stockholder's obligation to indemnify the Stockholders' Representative under this Agreement and the Escrow Agreement shall be limited to, and payable only from, each Shareholder's pro rata interest in the Escrow Account and cash available, if any, to the Stockholders under the Escrow Agreement. The Escrow Agent shall from time to time sell such amount of the Escrow Shares as necessary to pay such Stockholders' Representative's costs and expenses, to the extent required by the preceding sentence.

(c) Access to Information. The Stockholders' Representative shall have reasonable access to information of and concerning any Indemnity Claim and which is in the possession, custody or control of

the Company and the reasonable assistance of the Company's officers and employees for purposes of performing the Stockholders' Representative's duties under this Agreement or the Escrow Agreement and exercising its rights under this Agreement and the Escrow Agreement, including for the purpose of evaluating any Indemnity Claim against the Escrow Shares by CIENA; provided that the Stockholders' Representative shall treat confidentially and not disclose any nonpublic information from or concerning any Indemnity Claim to anyone (except to the Stockholders' Representative's attorneys, accountants or other advisers, to Stockholders, to the arbitrators appointed to resolve disputes pursuant to this Agreement, and on a need-to-know basis to other individuals who agree to keep such information confidential.)

(d) Reasonable Reliance. In the performance of his duties hereunder, the Stockholders' Representative shall be entitled to rely upon any document or instrument reasonably believed by him to be genuine, accurate as to content and signed by any Stockholder or CIENA. The Stockholders' Representative may assume that any person purporting to give any notice in accordance with the provisions hereof has been duly authorized to do so.

(e) Attorney-in-Fact.

(i) The Stockholders' Representative is hereby appointed and constituted the true and lawful attorney-in-fact of each Stockholder, with full power in his, her or its name and on his, her or its behalf to act according to the terms of this Agreement and the Escrow Agreement in the absolute discretion of the Stockholders' Representative; and in general to do all things and to perform all acts including, without limitation, executing and delivering the Escrow Agreement and any other agreements, certificates, receipts, instructions, notices or instruments contemplated by or deemed advisable in connection with the Escrow Agreement.

(ii) This power of attorney and all authority hereby conferred is granted and shall be irrevocable and shall not be terminated by any act of any Stockholder, by operation of law, whether by such Stockholder's death, disability protective supervision or any other event. Without limitation to the foregoing, this power of attorney is to ensure the performance of a special obligation and, accordingly, each Stockholder hereby renounces its, his or her right to renounce this power of attorney unilaterally any time before the end of the Escrow Period (as such term is defined in the Escrow Agreement).

(iii) Each Stockholder hereby waives any and all defenses which may be available to contest, negate or disaffirm the action of the Stockholders' Representative taken in good faith under the Escrow Agreement.

(iv) Notwithstanding the power of attorney granted in this Section 8.3, no agreement, instrument, acknowledgement or other act or document shall be ineffective by reason only of the Stockholders having signed or given such directly instead of the Stockholders' Representative.

(f) Liability. If the Stockholders' Representative is required by the terms of the Escrow Agreement to determine the occurrence of any event or contingency, the Stockholders' Representative shall, in making such determination, be liable to the Stockholders only for his proven bad faith as determined in light of all the circumstances, including the time and facilities available to him in the ordinary conduct of business. In determining the occurrence of any such event or contingency, the Stockholders' Representative may request from any of the Stockholders or any other person such reasonable additional evidence as the Stockholders' Representative in his sole discretion may deem necessary to determine any fact relating to the occurrence of such event or contingency, and may at any time inquire of and consult with others, including any of the Stockholders, and the Stockholders' Representative shall not be liable to any Stockholder for any damages resulting from his delay in acting hereunder pending his receipt and examination of additional evidence requested by him.

(g) Orders. The Stockholders' Representative is authorized, in his sole discretion, to comply with final, nonappealable orders or decisions issued or process entered by any court of competent jurisdiction or arbitrator with respect to the Escrow Shares. If any portion of the Escrow Shares is disbursed to the Stockholders' Representative and is at any time attached, garnished or levied upon under any court order, or in case the payment, assignment, transfer, conveyance or delivery of any such property shall be stayed

or enjoined by any court order, or in case any order, judgment or decree shall be made or entered by any court affecting such property or any part thereof, then and in any such event, the Stockholders' Representative is authorized, in his sole discretion, but in good faith, to rely upon and comply with any such order, writ, judgment or decree which he is advised by legal counsel selected by

him is binding upon him without the need for appeal or other action; and if the Stockholders' Representative complies with any such order, writ, judgment or decree, he shall not be liable to any Stockholder or to any other Person by reason of such compliance even though such order, writ, judgment or decree may be subsequently reversed, modified, annulled, set aside or vacated.

(h) Removal of Stockholders' Representative; Authority of Successor Stockholders' Representative. Stockholders who in the aggregate hold at least a majority of the Stockholders' interest in the Escrow Shares shall have the right at any time during the term of the Escrow Agreement to remove the then-acting Stockholders' Representative and to appoint a successor Stockholders' Representative; provided, however, that neither such removal of the then acting Stockholders' Representative nor such appointment of a successor Stockholders' Representative shall be effective until the delivery to the Escrow Agent of executed counterparts of a writing signed by each such Stockholder with respect to such removal and appointment, together with an acknowledgment signed by the successor Stockholders' Representative appointed in such writing that he or she accepts the responsibility of successor Stockholders' Representative and agrees to perform and be bound by all of the provisions of this Agreement applicable to the Stockholders' Representative. Each successor Stockholders' Representative shall have all of the power, authority, rights and privileges conferred by this Agreement upon the original Stockholders' Representative, and the term "Stockholders' Representative" as used herein and in the Escrow Agreement shall be deemed to include any interim or successor Stockholders' Representative.

SECTION 7.4. Defense of Third Party Claims.

(a) In the event of the assertion or commencement by any Person of any claim or legal proceeding ("Legal Proceeding") (whether against the Company, against any other indemnitee or against any other Person) with respect to which any of the Stockholders may become obligated to indemnify, hold harmless, pay, compensate or reimburse CIENA, their officers, directors or affiliates ("CIENA Indemnitee") pursuant to this ARTICLE VII, (i) CIENA, as soon as practicable after it receives written notice of any such claim or Legal Proceeding shall notify the Stockholders' Representative of such claim or Legal Proceeding (it being understood that the failure to notify the Stockholders' Representative shall not in any way limit the rights of the CIENA Indemnitees under this Agreement unless such failure materially prejudices the rights or defenses available to the Stockholders' Representative), and (ii) the Stockholders' Representative shall have the right to participate in the defense of such claim or Legal Proceeding at the sole expense of the Stockholders. If the Stockholders' Representative so participates in the defense of any such claim or Legal Proceeding, the Stockholders' Representative shall acknowledge in writing the obligation of the Stockholders to indemnify the relevant CIENA Indemnitee against any Losses that may result from such claim or Legal Proceeding.

(b) CIENA shall proceed with the defense of such claim or Legal Proceeding and:

(i) all expenses relating to the defense of such claim or Legal Proceeding shall be borne and paid exclusively by the Stockholders in the manner and to the extent contemplated by the Escrow Agreement and SECTION 7.2 hereof;

(ii) the Stockholders shall make available to CIENA any documents and materials in the possession or control of any of the Stockholders that may be necessary to the defense of such claim or Legal Proceeding;

(iii) CIENA shall keep the Stockholders' Representative informed of all material developments and events relating to such claim or Legal Proceeding; and

(iv) CIENA shall not have the right to settle, adjust or compromise such claim or Legal Proceeding without the prior written consent of the Stockholders' Representative, provided, however, that the Stockholders' Representative shall not unreasonably withhold such consent.

SECTION 7.5. Maximum Payments; Remedy.

Notwithstanding anything to the contrary herein, the existence of this Article and of the rights and restrictions set forth herein do not limit any legal remedy against the parties hereto for claims based on fraud. No Stockholder shall have any right to contribution from the Company for any claim made by CIENA with respect to any Loss claimed by CIENA after the Effective Time.

ARTICLE VIII

MISCELLANEOUS AND GENERAL

SECTION 8.1. Expenses.

Regardless of whether or not the transactions contemplated hereby have been consummated at the Closing, each party hereto shall pay its own expenses incidental to the preparation of this Agreement, the carrying out of the provisions of this Agreement and the consummation of the transactions contemplated hereby.

SECTION 8.2. Press Releases.

The Company shall not issue any press release or otherwise make public any information with respect to this Agreement nor the transactions contemplated hereby, prior to the Closing, without the prior written consent of CIENA. The parties shall issue a joint initial press release announcing the execution of this Agreement as may be mutually agreed.

SECTION 8.3. Contents of Agreement; Parties in Interest; Etc.

This Agreement and the agreements referred to or contemplated herein and the letter agreement dated September 21, 2000, as amended on November 29, 2000, concerning confidentiality (the "Confidentiality Agreement") set forth the entire understanding of the parties hereto with respect to the transactions contemplated hereby, and, except as set forth in this Agreement, such other agreements and the Exhibits hereto and the Confidentiality Agreement, there are no representations or warranties, express or implied, made by any party to this Agreement with respect to the subject matter of this Agreement and the Confidentiality Agreement. Except for the matters set forth in the Confidentiality Agreement, any and all previous agreements and understandings between or among the parties regarding the subject matter hereof, whether written or oral, are superseded by this Agreement and the agreements referred to or contemplated herein.

SECTION 8.4. Assignment and Binding Effect.

This Agreement may not be assigned by either party hereto without the prior written consent of the other party; provided, that CIENA may assign its rights and obligations under this Agreement to any directly or indirectly wholly-owned Subsidiary of CIENA, upon written notice to the Company if the assignee shall assume the obligations of CIENA hereunder and CIENA shall remain liable for its obligations hereunder. All the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective successors and assigns of the parties hereto.

SECTION 8.5. Termination.

(a) Termination by Mutual Consent. This Agreement may be terminated and the Merger may be abandoned at any time prior to the Effective Time, whether before or after the approval by Stockholders of the Company referred to in SECTION 6.1(d), by mutual written consent of the Company and CIENA.

(b) Termination by Either CIENA or the Company. This Agreement may be terminated and the Merger may be abandoned at any time prior to the Effective Time by action of the Board of Directors of either CIENA or the Company if (i) the Merger shall not have been consummated by June 30, 2001, whether such date is before or after the date of approval by the Stockholders of the Company (the "Termination Date"); (ii) the approval of the Company's stockholders required by SECTION 6.1(d) shall not have been obtained at a meeting duly convened therefor or at any adjournment or postponement

thereof; or (iii) any Order permanently restraining, enjoining or otherwise prohibiting consummation of the Merger shall become final and non-appealable; provided, that the right to terminate this Agreement pursuant to clause (i) or (ii) above shall not be available to any party that has breached in any material respect its obligations under this Agreement in any manner that shall have caused the occurrence of the failure of the Merger to be consummated or the stockholder approval to be obtained.

(c) Termination by the Company. This Agreement may be terminated and the Merger may be abandoned at any time prior to the receipt of the approval of the Company's Stockholders required by SECTION 6.1(d), by action of the Board of Directors of the Company:

(i) if (A) the Company is not in material breach of any of the terms of this Agreement, (B) the Merger shall not have been approved by the Company's Stockholders as required by SECTION 6.1(d), (C) the Board of Directors of the Company authorizes the Company, subject to complying with the terms of this Agreement, to enter into a binding written agreement concerning a transaction that constitutes a Superior Proposal and the Company notifies CIENA in writing that it intends to enter into such an agreement, attaching the most current version of such agreement to such notice, (D) CIENA does not make, within five Business Days of receipt of the Company's written notification of its intention to enter into a binding agreement for a Superior Proposal, an offer that the Board of Directors of the Company determines, in good faith after consultation with its outside legal counsel and its financial advisors, is at least as favorable to the stockholders of the Company as the Superior Proposal taking into account the long-term value to stockholders of the revised Merger Consideration and the strategic nature of the proposed Merger, if applicable, and (E) the Company prior to such termination pays to CIENA in immediately available funds the fees required to be paid pursuant to SECTION 8.5(e). The Company agrees (1) that it will not enter into a binding agreement referred to in clause (C) above until at least the sixth business day after it has provided the notice to CIENA required thereby and (2) to notify CIENA promptly if its intention to enter into a written agreement referred to in its notification shall change at any time after giving such notification; or

(ii) if it is not in material breach of its obligations under the Agreement and there is a breach by CIENA or Merger Sub of any material representation, warranty, covenant or agreement contained in this Agreement and such breach has not been cured within thirty (30) days after written notice thereof to CIENA, or such breach cannot be cured, and would cause a

condition set forth in SECTION 6.3(a) to be incapable of being satisfied.

(d) Termination by CIENA. This Agreement may be terminated and the Merger may be abandoned at any time prior to the Effective Time, whether before or after the receipt of the approval of the Company's Stockholders required by SECTION 6.1(d), by written notice given to the Company by CIENA.

(i) if the Company or its Board of Directors shall have (A) withdrawn, modified or amended in any respect adverse to CIENA its recommendation of the adoption of this Agreement or failed to reconfirm its recommendation of this Agreement or the Merger within three Business Days after a written request by CIENA to do so ("Change in the Board Recommendation"), or (B) approved, recommended or entered into an agreement with respect to, or consummated, or adopted a resolution to approve, recommend, enter into an agreement with respect to, or consummate, any Acquisition Proposal from a person other than CIENA or any of its Affiliates; or

(ii) if it is not in material breach of its obligations under the Agreement and there is a breach by the Company of any material representation, warranty, covenant or agreement contained in this Agreement, or such breach has not been cured within thirty (30) days after written notice thereof to the Company and such breach cannot be cured and would cause a condition set forth in SECTION 6.2(a) or 6.2(d) to be incapable of being satisfied.

(e) Effect of Termination and Abandonment.

(i) In the event of termination of this Agreement and the abandonment of the Merger pursuant to this SECTION 8.5, this Agreement (other than as set forth in this SECTION 8.5(e)) shall become void

and of no effect with no liability on the part of any party hereto (or of any of its directors, officers, employees, agents, legal and financial advisors or other representatives); provided, however, except as otherwise provided herein, no such termination shall relieve any party hereto of any liability or damages resulting from any willful breach of this Agreement.

(ii) In the event that this Agreement is terminated (A) by the Company pursuant to SECTION 8.5(c)(i) or (B) by CIENA pursuant to SECTION 8.5(d)(i), then the Company shall (1) promptly, but in no event later than the earlier of the date of such termination or date of entrance into an agreement concerning an Acquisition Proposal or such earlier time as required by this Agreement, pay to CIENA a termination fee of $80 million payable by wire transfer of same day funds and (2) in no event later than two business days after CIENA shall have requested payment of its charges and expenses incurred in connection with the transactions contemplated hereby, pay to CIENA the amount of such charges and expenses up to a maximum of $1.5 million payable by wire transfer of same day funds. Notwithstanding the foregoing, except as provided in clause (iii) below, the Company shall have no obligation to pay the amounts payable in this clause (ii) if (x) the Agreement is terminated pursuant to SECTION 8.5(d)(i)(A), and (y) the principal reason for the Change in the Board Recommendation is a development or combination of developments relating to CIENA that, in any such case individually or in the aggregate, has had or is reasonably likely to result in a CIENA Material Adverse Effect.

(iii) In the event that this Agreement is terminated pursuant to SECTION 8.5(b)(ii), or pursuant to SECTION 8.5(d)(i)(A) in a circumstance where no termination fee is payable pursuant to the last sentence of SECTION 8.5(e)(ii), and at the time of the Company Stockholders' Meeting or

Change in the Board Recommendation referred to therein any Person shall have made an Acquisition Proposal to the Company or any of its stockholders or shall have publicly announced an intention (whether or not conditional) to make an Acquisition Proposal with respect to the Company, if within 12 months of such termination, the Company enters into an agreement concerning a transaction that constitutes an Acquisition Proposal, the Company shall (A) at the time of entering into such agreement, shall pay to CIENA the termination fee of $80 million payable by wire transfer of same day funds and (B) in no event later than two business days after CIENA shall have requested payment of its charges and expenses incurred in connection with the transactions contemplated hereby, pay to CIENA the amount of such charges and expenses up to a maximum of $1.5 million payable by wire transfer of same day funds.

(iv) The Company and CIENA each acknowledge that the agreements contained in SECTIONS 8.5(e)(ii) and (iii) are an integral part of the transactions contemplated by this Agreement, and that, without these agreements, the Company, CIENA and Merger Sub would not enter into this Agreement; accordingly, if the Company fails to promptly pay the amounts due pursuant to this Section, and, in order to obtain such payment, CIENA commences a suit which results in a judgment against the Company for the fees set forth in this SECTION 8.5, the Company shall pay to CIENA its costs and expenses (including attorneys' fees) in connection with such suit, together with interest from the date of termination of this Agreement on the amounts owed at the prime rate of First Union National Bank of Maryland in effect from time to time during such period plus two percent.

SECTION 8.6. Joint Integration Team.

The parties agree that a joint integration team represented equally by the Company and CIENA shall identify any person(s) performing redundant functions at the Company to those performed at CIENA. The Parties agree that to the extent a person is identified as performing a redundant function the joint integration team shall use reasonable best efforts to identify a suitable non-redundant position for such person. If the joint integration team is unable to identify a suitable non-redundant position for such person(s) then it shall agree on a salary and benefits continuation and Substitute Options vesting continuation for such person(s) of from three to six months based on the experience level and position of such person. In the event that the team is deadlocked on a particular position the team shall bring the

decision to the President of the Company (or its successor) for advice and consultation and, if necessary, to CIENA's President or Chairman, who shall make the ultimate decision.

SECTION 8.7. Definitions.

As used in this Agreement the terms set forth below shall have the following meanings:

(a) "Affiliate" of a Person means any other Person who directly or indirectly through one or more intermediaries controls, is controlled by or is under common control with such Person. "Control" means the possession of the power, directly or indirectly, to direct or cause the direction of the management and policies of a Person whether through the ownership of voting securities, by contract or otherwise.

(b) "Assets" means assets of every kind and everything that is or may be available for the payment of liabilities (whether inchoate, tangible or

intangible), including, without limitation, real and personal property but excluding Intellectual Property Rights.

(d) "Business Day" means a day other than Saturday or Sunday or a day on which banks are required or authorized to close in the State of California, Maryland or Delaware.

(e) "CIENA Material Adverse Effect" means a material adverse effect on the business, financial condition, assets, liabilities or results of operations of CIENA and its Subsidiaries, taken as a whole; provided, however, that none of the following shall be deemed in themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a CIENA Material Adverse Effect: (a) any failure by CIENA to meet internal projections of forecasts or published revenue or earnings predictions for any period ending (or for which revenues or earnings are released) on or after the date of this Agreement; (b) any adverse change, effect, event, occurrence, state of facts or development to the extent attributable to the announcement or pendency of the Merger (including any cancellations of or delays in customer orders, any reduction in sales, any disruption in supplier, distributor, partner or similar relationships or any loss of employees); (c) any adverse change, effect, event, occurrence, state of facts or development attributable to conditions affecting the industries in which CIENA participates, the U.S. economy as a whole or foreign economies in any locations where CIENA has material operations or sales or suppliers or customers; (d) any adverse change, effect, event, occurrence, state of facts or development attributable or relating to (i) out-of-pocket fees and expenses (including legal, accounting, investment banking and other fees and expenses) incurred in connection with the transactions contemplated by this Agreement, or (ii) the payment of any amounts due to, or the provision of any other benefits (including benefits relating to acceleration of stock options) to, any officers or employees under employment contracts, non-competition agreements, employee benefit plans, severance arrangements or other arrangements in existence as of the date of this Agreement; or (e) any adverse change, effect, event, occurrence, state of facts or development resulting from or relating to compliance with the terms of, or the taking of any action required by, this Agreement.

(f) "Code" shall mean the Internal Revenue Code of 1986, as amended.

(g) "Company Material Adverse Effect" means a material adverse effect on the business, financial condition, prospects, Assets, liabilities or results of operations of the Company; provided, however, that none of the following shall be deemed in themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a Company Material Adverse Effect: (a) any failure by Company to meet internal projections of forecasts or published revenue or earnings predictions for any period ending (or for which revenues or earnings are released) on or after the date of this Agreement; (b) any adverse change, effect, event, occurrence, state of facts or development to the extent attributable to the announcement or pendency of the Merger (including any cancellations of or delays in customer orders, any reduction in sales, any disruption in supplier, distributor, partner or similar relationships or any loss of employees); (c) attrition with respect to employees of the Company who do not have employment contracts with CIENA after the Merger; (d) any adverse change, effect, event,

occurrence, state of facts or development attributable to conditions affecting the industries in which Company participates, the U.S. economy as

a whole or foreign economies in any locations where Company has material operations or sales or suppliers or customers; (e) any adverse change, effect, event, occurrence, state of facts or development attributable or relating to (i) out-of-pocket fees and expenses (including legal, accounting, investment banking and other fees and expenses) incurred in connection with the transactions contemplated by this Agreement, or (ii) the payment of any amounts due to, or the provision of any other benefits (including benefits relating to acceleration of stock options) to, any officers or employees under employment contracts, non-competition agreements, employee benefit plans, severance arrangements or other arrangements in existence as of the date of this Agreement; or (f) any adverse change, effect, event, occurrence, state of facts or development resulting from or relating to compliance with the terms of, or the taking of any action required by, this Agreement.

(h) "Encumbrances" means Liens, security interests, deeds of trust, encroachments, reservations, orders of Governmental Entities, decrees, judgments, contract rights, claims or equity of any kind.

(i) "Environmental Laws" shall mean all applicable federal, state, local or foreign laws, rules and regulations, orders, decrees, judgments, permits, filings and licenses relating (i) to protection and clean-up of the environment and activities or conditions related thereto, including those relating to the generation, handling, disposal, transportation or release of Hazardous Substances and (ii) the health or safety of employees in the workplace environment, all as amended from time to time, and shall also include any common law theory based on nuisance, trespass, negligence or other tortious conduct.

(j) "ERISA" means the Employee Retirement Income Security Act of 1974, as amended, and all Laws promulgated pursuant thereto or in connection therewith.

(k) "Exchange Agent" shall mean a bank or trust company designated as the exchange agent by CIENA (which designation shall be reasonably acceptable to the Stockholders' Representative).

(l) "Exchange Ratios" shall mean the Company Preferred Stock Exchange Ratio and the Company Common Stock Exchange Ratio.

(m) "Governmental Entity" means any United States or other national, state, municipal or local government, domestic or foreign, any subdivision, agency, entity, commission or authority thereof, or any quasi-governmental or private body exercising any regulatory, taxing, importing or other governmental or quasi-governmental authority.

(n) "Hazardous Substances" shall mean any and all hazardous and toxic substances, wastes or materials, any pollutants, contaminants, or dangerous materials (including, but not limited to, polychlorinated biphenyls, PCBs, friable asbestos, volatile and semi-volatile organic compounds, oil, petroleum products and fractions, and any materials which include hazardous constituents or become hazardous, toxic, or dangerous when their composition or state is changed), or any other similar substances or materials which are included under or regulated by any Environmental Laws.

(o) "holders" shall mean, with respect to any Person entitled to receive any portion of the Aggregate Share Consideration distributable in accordance with ARTICLE I hereof, such holders on and as of the Effective Time and their respective successors by operation of law, heirs, executors, administrators and legal representatives.

(p) "Knowledge of the Company" or "Company's Knowledge" shall mean the

actual knowledge of any of the Directors and Officers of the Company as of the date hereof.

(q) "Laws" means all foreign, federal, state and local statutes, laws, ordinances, regulations, rules, resolutions, orders, determinations, writs, injunctions, awards (including, without limitation, awards of any arbitrator), judgments and decrees applicable to the specified persons or entities.

(r) "Liens" shall mean any mortgage, pledge, lien, security interest, conditional or installment sale agreement, encumbrance, charge or other claims of third parties of any kind.

157

(s) "Non-Competition Agreements" means the Non-Competition Agreements dated as of the date hereof, to be effective as of the Closing Date, between CIENA and certain officers of the Company.

(t) "Ordinary Course of Business" shall mean all actions taken by a Person if such action is consistent with the past practices of such Person and is taken in the ordinary course of the normal day-to-day operations of such Person.

(u) "Permitted Encumbrances" shall mean (i) Liens for Taxes not yet due or which are being contested in good faith by appropriate proceedings and for which adequate reserves have been established in accordance with applicable generally accepted accounting principles; (ii) such minor encumbrances, easements or reservations of, or rights of others for, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning restrictions as to the use of real properties, which do not materially interfere with the use, occupation and enjoyment of the property subject to the Lien by and in connection with the applicable business; (iii) Liens incurred in the Ordinary Course of Business in connection with workers' compensation, unemployment insurance and other types of social security; and (iv) Liens in favor of customs authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods to the extent accred on the relevant Financial Statements.

(v) "Person" shall mean any individual, corporation, partnership, limited partnership, limited liability company, trust, association or entity or government agency or authority.

(w) "Registration Rights Agreement" shall mean the Fourth Amended and Restated Registration Rights Agreement, dated September 27, 2000 among the Company and the parties named therein.

(x) "Right of First Refusal and Co-Sale Agreement" means the Third Amended and Restated Right of First Refusal and Founders' Co-Sale Agreement dated September 27, 2000, by and among the Company and holders of the Company's Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, and Series E Preferred Stock and Alnoor Shivji, Shekhar Mandal, Rafat Pirzada, Sunil Tomar and Diosdado Banatao.

(y) "Subsidiary" of a Person shall mean any corporation, partnership, joint venture or other entity in which such person (a) owns, directly or indirectly, 50% or more of the outstanding voting securities or equity interests or (b) is a general partner.

(z) "Tax" (and, with correlative meaning, "Taxes" and "Taxable") shall

mean any federal, state, local or foreign net income, gross income, gross receipts, windfall profit, severance, property, production, sales, use, license, excise, franchise, employment, payroll, withholding, alternative or add-on minimum, ad valorem, value-added, transfer, stamp, or environmental tax, or any other tax, custom, duty, governmental fee or other like assessment or charge of any kind whatsoever, together with any interest or penalty, addition to tax or additional amount imposed by any governmental authority.

(aa) "Tax Return" shall mean any return, report or similar statement required to be filed with respect to any Tax (including any attached schedules), including, without limitation, any information return, claim for refund, amended return or declaration of estimated Tax.

SECTION 8.8. Notices.

Any notice, request, demand, waiver, consent, approval, or other communication which is required or permitted to be given to any party hereunder shall be in writing and shall be deemed given only if delivered to the party personally or sent to the party by facsimile transmission (promptly followed by a hard-copy delivered in accordance with this SECTION 8.8) or by registered or certified mail (return receipt

requested), with postage and registration or certification fees thereon prepaid, addressed to the party at its address set forth below:

If to CIENA:

CIENA Corporation
1201 Winterson Road
Linthicum, Maryland 21090
Attention: General Counsel

with a copy to:

Hogan & Hartson L.L.P.
111 South Calvert Street, 16th Floor
Baltimore, Maryland 21202
Attention: Michael J. Silver

If to the Company:

Cyras Systems, Inc.
47100 Bayside Parkway
Fremont, California 94538
Attention: General Counsel

with a copy to:

Brobeck, Phleger & Harrison LLP
Two Embarcadero Place
2200 Geng Road
Palo Alto, CA 94303
Attention: Warren T. Lazarow

or to such other address or Person as any party may have specified in a notice duly given to the other party as provided herein. Such notice, request, demand, waiver, consent, approval or other communication will be deemed to have been given as of the date so delivered, telegraphed or mailed.

SECTION 8.9. Amendment.

This Agreement may be amended, modified or supplemented at any time prior to the Effective Time by mutual agreement of the respective Boards of Directors of the Company and CIENA, except as provided in Section 251(d) of the DGCL. Any amendment, modification or revision of this Agreement and any waiver of compliance or consent with respect hereto shall be effective only if in a written instrument executed by the parties hereto.

SECTION 8.10. Governing Law.

This Agreement shall be governed by and interpreted and enforced in accordance with the laws of the State of Delaware as applied to contracts made and fully performed in such state.

SECTION 8.11. No Benefit to Others.

The representations, warranties, covenants and agreements contained in this Agreement are for the sole benefit of the parties hereto, and their respective successors and assigns, and they shall not be construed as conferring, and are not intended to confer, any rights on any other Person except as provided in ARTICLE I and SECTION 5.13 and 7.3(b).

SECTION 8.12. Severability.

If any term or other provision of this Agreement is determined to be invalid, illegal or incapable of being enforced by any rule of law or public policy, all other terms and provisions of the Agreement shall remain in full force and effect. Upon such determination, the parties hereto shall negotiate in good faith to

modify this Agreement so as to give effect to the original intent of the parties to the fullest extent permitted by applicable law.

SECTION 8.13. Section Headings.

All section headings are for convenience only and shall in no way modify or restrict any of the terms or provisions hereof.

SECTION 8.14. Schedules and Exhibits.

All Schedules and Exhibits referred to herein are intended to be and hereby are specifically made a part of this Agreement.

SECTION 8.15. Extensions.

At any time prior to the Effective Time, CIENA, on the one hand, and the Company on the other may by corporate action, extend the time for compliance by or waive performance of any representation, warranty, condition or obligation of the other party subject to the provisions of SECTION 8.9 regarding the manner of waiver.

SECTION 8.16. Counterparts.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, and the Company and CIENA may become a party hereto by executing a counterpart hereof. This Agreement and any counterpart so executed shall be deemed to be one and the same instrument.

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160

AGREEMENT AND PLAN OF MERGER BY AND AMONG CIENA CORPORATION, CYRAS SYSTEMS, INC. AND CO ACQUISITION CORP. SIGNATURE PAGE

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound hereby, have duly executed this Agreement and Plan of Merger as of the date first above written.

CIENA CORPORATION

By: /s/ PATRICK H. NETTLES

Patrick H. Nettles, Ph.D.
Chairman

CO ACQUISITION CORP.

By: /s/ PATRICK H. NETTLES

Patrick H. Nettles, Ph.D.
President

CYRAS SYSTEMS, INC.

By: /s/ ALNOOR SHIVJI

Alnoor Shivji
President and CEO

161

GLOSSARY OF DEFINED TERMS

DEFINED TERM	LOCATION OF DEFINITION
Acquisition Proposal	Section 5.4
Affiliate	Section 8.7
Aggregate Share Consideration	Section 1.5
Aggregate Value	Section 1.5
Agreement	Preamble
Assets	Section 8.7
Assumed Option	Section 5.10
Assumed Value	Section 1.5
Balance Sheet Date	Section 2.6
Board Recommendation	Section 5.6
Business Day	Section 8.7
Certificates	Section 1.8
Change in the Board Recommendation	Section 8.5
CIENA	Preamble
CIENA Charter Documents	Section 3.2
CIENA Common Stock	Section 1.5
CIENA Indemnitee	Section 7.4

CIENA Material Adverse Effect	Section 8.7
CIENA Stock	Section 1.5
Closing	Section 1.1
Closing Date	Section 1.1
Code	Section 8.7
Common Stock Exchange Ratio	Section 1.5
Company	Preamble
Company Benefit Plans	Section 2.17
Company Capital Stock	Recitals
Company Certificate	Section 1.2
Company Common Stock	Recitals
Company Material Adverse Effect	Section 8.7
Company Outstanding Shares	Section 1.5
Company Preferred Stock	Recitals
Company Requisite Vote	Section 2.4
Company Stock Options	Section 5.10
Company Warrant	Section 5.10
Confidentiality Agreement	Section 8.3
Contracts	Section 2.10
DGCL	Recitals
Dissenting Shares	Section 1.7
Effective Time	Section 1.1
Encumbrances	Section 8.7
Environmental Laws	Section 8.7
ERISA	Section 8.7
Escrow Agent	Section 7.2
Escrow Amount	Section 1.8
Escrow Fund	Section 7.2
Exchange Act	Section 3.7
Exchange Agent	Section 8.7
Exchange Fund	Section 1.8
Exchange Ratios	Section 8.7
Financial Statements	Section 2.6
GAAP	Section 2.6

DEFINED TERM	LOCATION OF DEFINITION
Governmental Entity	Section 8.7
Hart-Scott-Rodino Act	Section 2.5
Hazardous Substances	Section 8.7
holders	Section 8.7
Indemnity Claim	Section 7.3
Indemnification Threshold	Section 7.2
Indemnified Parties	Section 7.2
Intellectual Property Rights	Section 2.15
IRS	Section 2.17
Knowledge	Section 8.7
Laws	Section 8.7
Legal Proceeding	Section 7.4
Liens	Section 8.7
Loss	Section 7.2
Merger	Recitals
Merger Sub	Preamble
NASDAQ	Section 1.5

Non-Competition Agreement	Section 8.7
Option Consideration	Section 1.5
Ordinary Course of Business	Section 8.7
Permitted Encumbrances	Section 8.7
Person	Section 8.7
Preferred Liquidation Value	Section 1.5
Preferred Share Consideration	Section 1.5
Preferred Stock Exchange Ratio	Section 1.5
Proxy Statement/Prospectus	Section 5.5
Real Property	Section 2.11
Registration Rights Agreement	Section 8.7
Right	Section 1.5
Right of First Refusal and Co-Sale Agreement	Section 8.7
S-4 Registration Statement	Section 5.5
SEC	Section 3.7
Securities Act	Section 2.17
Series A Preferred Stock	Recitals
Series B Preferred Stock	Recitals
Series C Preferred Stock	Recitals
Series D Preferred Stock	Recitals
Series E Preferred Stock	Recitals
Stock Option Equivalents	Section 1.5
Stock Plan	Section 5.10
Stock Price	Section 1.5
Stockholders	Section 1.5
Stockholders' Meeting	Section 5.6
Stockholders' Representative	Section 7.3
Subsidiary	Section 8.7
Superior Proposal	Section 5.4
Surviving Company	Section 1.1
Tax	Section 8.7
Tax Return	Section 8.7
Termination Date	Section 8.5

APPENDIX B

DELAWARE GENERAL CORPORATION LAW
SECTION 262

sec. 262. Appraisal rights.

(a) Any stockholder of a corporation of this State who holds shares of stock on the date of the making of a demand pursuant to subsection (d) of this section with respect to such shares, who continuously holds such shares through the effective date of the merger or consolidation, who has otherwise complied with subsection (d) of this section and who has neither voted in favor of the merger or consolidation nor consented thereto in writing pursuant to sec. 228 of this title shall be entitled to an appraisal by the Court of Chancery of the fair value of the stockholder's shares of stock under the circumstances described in subsections (b) and (c) of this section. As used in this section, the word "stockholder" means a holder of record of stock in a stock corporation and also a member of record of a nonstock corporation; the words "stock" and "share" mean and include what is ordinarily meant by those words and also membership or membership interest of a member of a nonstock corporation; and the words "depository receipt" mean a receipt or other instrument issued by a depository representing an interest in one or more shares, or fractions thereof, solely of stock of a corporation, which stock is deposited with the depository.

(b) Appraisal rights shall be available for the shares of any class or series of stock of a constituent corporation in a merger or consolidation to be effected pursuant to sec. 251 (other than a merger effected pursuant to sec. 251(g) of this title), sec. 252, sec. 254, sec. 257, sec. 258, sec. 263 or sec. 264 of this title:

(1) Provided, however, that no appraisal rights under this section shall be available for the shares of any class or series of stock, which stock, or depository receipts in respect thereof, at the record date fixed to determine the stockholders entitled to receive notice of and to vote at the meeting of stockholders to act upon the agreement of merger or consolidation, were either (i) listed on a national securities exchange or designated as a national market system security on an interdealer quotation system by the National Association of Securities Dealers, Inc. or (ii) held of record by more than 2,000 holders; and further provided that no appraisal rights shall be available for any shares of stock of the constituent corporation surviving a merger if the merger did not require for its approval the vote of the stockholders of the surviving corporation as provided in subsection (f) of sec. 251 of this title.

(2) Notwithstanding paragraph (1) of this subsection, appraisal rights under this section shall be available for the shares of any class or series of stock of a constituent corporation if the holders thereof are required by the terms of an agreement of merger or consolidation pursuant to sec.sec. 251, 252, 254, 257, 258, 263 and 264 of this title to accept for such stock anything except:

a. Shares of stock of the corporation surviving or resulting from such merger or consolidation, or depository receipts in respect thereof;

b. Shares of stock of any other corporation, or depository receipts in respect thereof, which shares of stock (or depository receipts in respect thereof) or depository receipts at the effective date of the merger or consolidation will be either listed on a national securities exchange or designated as a national market system security on an interdealer quotation system by the National Association of Securities Dealers, Inc. or held of record by more than 2,000 holders;

c. Cash in lieu of fractional shares or fractional depository receipts described in the foregoing subparagraphs a. and b. of this paragraph; or

d. Any combination of the shares of stock, depository receipts and cash in lieu of fractional shares or fractional depository receipts described in the foregoing subparagraphs a., b. and c. of this paragraph.

(3) In the event all of the stock of a subsidiary Delaware corporation party to a merger effected under sec. 253 of this title is not owned by the parent corporation immediately prior to the merger, appraisal rights shall be available for the shares of the subsidiary Delaware corporation.

(c) Any corporation may provide in its certificate of incorporation that appraisal rights under this section shall be available for the shares of any class or series of its stock as a result of an amendment to its certificate of incorporation, any merger or consolidation in which the corporation is a constituent corporation or the sale of all or substantially all of the assets of corporation. If the certificate of incorporation contains such a provision, the procedures of this section, including those set forth in subsections (d) and (e)

of this section, shall apply as nearly as is practicable.

(d) Appraisal rights shall be perfected as follows:

(1) If a proposed merger or consolidation for which appraisal rights are provided under this section is to be submitted for approval at a meeting of stockholders, the corporation, not less than 20 days prior to the meeting, shall notify each of its stockholders who was such on the record date for such meeting with respect to shares for which appraisal rights are available pursuant to subsection (b) or (c) hereof that appraisal rights are available for any or all of the shares of the constituent corporations, and shall include in such notice a copy of this section. Each stockholder electing to demand the appraisal of such stockholder's shares shall deliver to the corporation, before the taking of the vote on the merger or consolidation, a written demand for appraisal of such stockholder's shares. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such stockholder's shares. A proxy or vote against the merger or consolidation shall not constitute such a demand. A stockholder electing to take such action must do so by a separate written demand as herein provided. Within 10 days after the effective date of such merger or consolidation, the surviving or resulting corporation shall notify each stockholder of each constituent corporation who has complied with this subsection and has not voted in favor of or consented to the merger or consolidation of the date that the merger or consolidation has become effective; or

(2) If the merger or consolidation was approved pursuant to sec. 228 or sec. 253 of this title, each constituent corporation, either before the effective date of the merger or consolidation or within ten days thereafter, shall notify each of the holders of any class or series of stock of such constituent corporation who are entitled to appraisal rights of the approval of the merger or consolidation and that appraisal rights are available for any or all shares of such class of series of stock of such constituent corporation, and shall include in such notice a copy of this section; provided that, if the notice is given on or after the effective date of the merger or consolidation, such notice shall be given by the surviving or resulting corporation to all such holders of any class or series of stock of a constituent corporation that are entitled to appraisal rights. Such notice may, and, if given on or after the effective date of the merger or consolidation, shall, also notify such stockholders of the effective date of the merger or consolidation. Any stockholder entitled to appraisal rights may, within 20 days after the date of mailing of such notice, demand in writing from the surviving or resulting corporation the appraisal of such holder's shares. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such holder's shares. If such notice did not notify stockholders of the effective date of the merger or consolidation, either (i) each such constituent corporation shall send a second notice before the effective date of the merger or consolidation notifying each of the holders of any class or series of stock of such constituent corporation that are entitled to appraisal rights of the effective date of the merger or consolidation or (ii) the surviving or resulting corporation shall send such a second notice to all such holders on or within 10 days after such effective date; provided, however, that if such second notice is sent more than 20 days following the sending of the first notice, such second notice need only be sent to each stockholder who is entitled to appraisal rights and who has demanded appraisal of such holder's shares in accordance with this subsection. An affidavit of the secretary or assistant secretary or of the transfer agent of the corporation that is required to give either notice that such notice has been given shall, in the absence of fraud, be

prima facie evidence of the facts stated

therein. For purposes of determining the stockholders entitled to receive either notice, each constituent corporation may fix, in advance, a record date that shall be not more than 10 days prior to the date the notice is given, provided, that if the notice is given on or after the effective date of the merger or consolidation, the record date shall be such effective date. If no record date is fixed and the notice is given prior to the effective date, the record date shall be the close of business on the day next preceding the day on which the notice is given.

(e) Within 120 days after the effective date of the merger or consolidation, the surviving or resulting corporation or any stockholder who has complied with subsections (a) and (d) hereof and who is otherwise entitled to appraisal rights, may file a petition in the Court of Chancery demanding a determination of the value of the stock of all such stockholders. Notwithstanding the foregoing, at any time within 60 days after the effective date of the merger or consolidation, any stockholder shall have the right to withdraw such stockholder's demand for appraisal and to accept the terms offered upon the merger or consolidation. Within 120 days after the effective date of the merger or consolidation, any stockholder who has complied with the requirements of subsections (a) and (d) hereof, upon written request, shall be entitled to receive from the corporation surviving the merger or resulting from the consolidation a statement setting forth the aggregate number of shares not voted in favor of the merger or consolidation and with respect to which demands for appraisal have been received and the aggregate number of holders of such shares. Such written statement shall be mailed to the stockholder within 10 days after such stockholder's written request for such a statement is received by the surviving or resulting corporation or within 10 days after expiration of the period for delivery of demands for appraisal under subsection (d) hereof, whichever is later.

(f) Upon the filing of any such petition by a stockholder, service of a copy thereof shall be made upon the surviving or resulting corporation, which shall within 20 days after such service file in the office of the Register in Chancery in which the petition was filed a duly verified list containing the names and addresses of all stockholders who have demanded payment for their shares and with whom agreements as to the value of their shares have not been reached by the surviving or resulting corporation. If the petition shall be filed by the surviving or resulting corporation, the petition shall be accompanied by such a duly verified list. The Register in Chancery, if so ordered by the Court, shall give notice of the time and place fixed for the hearing of such petition by registered or certified mail to the surviving or resulting corporation and to the stockholders shown on the list at the addresses therein stated. Such notice shall also be given by 1 or more publications at least 1 week before the day of the hearing, in a newspaper of general circulation published in the City of Wilmington, Delaware or such publication as the Court deems advisable. The forms of the notices by mail and by publication shall be approved by the Court, and the costs thereof shall be borne by the surviving or resulting corporation.

(g) At the hearing on such petition, the Court shall determine the stockholders who have complied with this section and who have become entitled to appraisal rights. The Court may require the stockholders who have demanded an appraisal for their shares and who hold stock represented by certificates to submit their certificates of stock to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any stockholder fails to comply with such direction, the Court may dismiss the proceedings as to such stockholder.

(h) After determining the stockholders entitled to an appraisal, the Court shall appraise the shares, determining their fair value exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with a fair rate of interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. In determining the fair rate of interest, the Court may consider all relevant factors, including the rate of interest which the surviving or resulting corporation would have had to pay to borrow money during the pendency of the proceeding. Upon application by the surviving or resulting corporation or by any stockholder entitled to participate in the appraisal proceeding, the Court may, in its discretion, permit discovery or other pretrial proceedings and may proceed to trial upon the appraisal prior to the final determination of the stockholder entitled to an appraisal. Any stockholder whose name appears on the list filed by the surviving or resulting corporation pursuant to subsection (f) of this section and who has

submitted such stockholder's certificates of stock to the Register in Chancery, if such is required, may participate fully in all proceedings until it is finally determined that such stockholder is not entitled to appraisal rights under this section.

(i) The Court shall direct the payment of the fair value of the shares, together with interest, if any, by the surviving or resulting corporation to the stockholders entitled thereto. Interest may be simple or compound, as the Court may direct. Payment shall be so made to each such stockholder, in the case of holders of uncertificated stock forthwith, and the case of holders of shares represented by certificates upon the surrender to the corporation of the certificates representing such stock. The Court's decree may be enforced as other decrees in the Court of Chancery may be enforced, whether such surviving or resulting corporation be a corporation of this State or of any state.

(j) The costs of the proceeding may be determined by the Court and taxed upon the parties as the Court deems equitable in the circumstances. Upon application of a stockholder, the Court may order all or a portion of the expenses incurred by any stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorney's fees and the fees and expenses of experts, to be charged pro rata against the value of all the shares entitled to an appraisal.

(k) From and after the effective date of the merger or consolidation, no stockholder who has demanded his appraisal rights as provided in subsection (d) of this section shall be entitled to vote such stock for any purpose or to receive payment of dividends or other distributions on the stock (except dividends or other distributions payable to stockholders of record at a date which is prior to the effective date of the merger or consolidation); provided, however, that if no petition for an appraisal shall be filed within the time provided in subsection (e) of this section, or if such stockholder shall deliver to the surviving or resulting corporation a written withdrawal of such stockholder's demand for an appraisal and an acceptance of the merger or consolidation, either within 60 days after the effective date of the merger or consolidation as provided in subsection (e) of this section or thereafter with the written approval of the corporation, then the right of such stockholder to an appraisal shall cease. Notwithstanding the foregoing, no appraisal proceeding in the Court of Chancery shall be dismissed as to any stockholder without the approval of the Court, and such approval may be conditioned upon such terms as the Court deems just.

(l) The shares of the surviving or resulting corporation to which the

shares of such objecting stockholders would have been converted had they assented to the merger or consolidation shall have the status of authorized and unissued shares of the surviving or resulting corporation.

APPENDIX C

ESCROW AGREEMENT

THIS ESCROW AGREEMENT (the "Agreement") is made and dated as of , 2001 by and among CIENA CORPORATION, a Delaware corporation ("CIENA"), CYRAS SYSTEMS, INC., a Delaware corporation (the "Company"), CO ACQUISITION CORP., a Delaware corporation (the "Merger Sub"), [ ] (the "Escrow Agent"), and Doug Carlisle, acting by virtue of the Agreement and Plan of Merger dated as of December 18, 2000 (the "Merger Agreement") as the attorney-in-fact and Representative of the Stockholders of the Company (the "Stockholders' Representative").

W I T N E S S E T H:

WHEREAS, CIENA, the Company and the Merger Sub have entered into the Merger Agreement, providing for the merger of the Merger Sub with and into the Company, and in connection with which the Stockholders of the Company shall receive as consideration a number of shares of Common Stock of CIENA (the "CIENA Common Stock") as set forth in the Merger Agreement;

WHEREAS, pursuant to the Merger Agreement, CIENA, the Company and the Merger Sub have agreed that the rights of indemnification under Article VII of the Merger Agreement shall survive the consummation of the transactions contemplated by the Merger Agreement, and shall be secured, pursuant to this Agreement, by certain shares of CIENA Common Stock (together with any accumulations thereto as provided herein, the "Escrow Shares"), to be registered in the name of the Escrow Agent, as escrow agent hereunder, and deposited in escrow with the Escrow Agent;

WHEREAS, the Escrow Agent is willing to act in the capacity of Escrow Agent hereunder subject to, and upon the terms and conditions of this Agreement;

WHEREAS, pursuant to the Merger Agreement, the Stockholders' Representative has been appointed as the Stockholders' attorney-in-fact and authorized and empowered to act, for and on behalf of any or all of the Stockholders (with full power of substitution in the premises) in connection with the indemnity provisions of the Merger Agreement, this Escrow Agreement, and such other matters as are reasonably necessary for the consummation of the transactions contemplated hereby and thereby; and

WHEREAS, capitalized terms used and not defined herein have the meanings assigned to such terms in the Merger Agreement.

NOW, THEREFORE, in consideration of the promises, covenants and agreements set forth in this Agreement and of other good and valuable consideration, the receipt and legal sufficiency of which they hereby acknowledge, and intending to be legally bound hereby, and as an inducement for the execution and delivery of the Merger Agreement, CIENA, the Company, the Merger Sub, the Escrow Agent and the Stockholders' Representative hereby agree as follows:

ARTICLE I

DESIGNATION OF ESCROW AGENT AND CAPITAL SHARES SUBJECT TO ESCROW

1.1 Designation of Escrow Agent. CIENA, the Company and the Merger Sub hereby mutually designate and appoint [TO BE PROVIDED], a corporation having an office and place of business located at [TO BE PROVIDED], as Escrow Agent for the purposes set forth herein. The Escrow Agent hereby accepts such appointment and agrees to act in furtherance of the provisions of the Merger Agreement, but only upon the terms and conditions provided in this Agreement.

1.2 Capital Stock Subject to Escrow. In accordance with Section 7.2 of the Merger Agreement, upon execution of this Agreement and subject to compliance by the Company with the provisions of the Merger Agreement, CIENA shall on the Closing Date (as defined in the Merger Agreement) issue and deliver, or

cause to be delivered, to the Escrow Agent one or more stock certificates (the "Escrow Certificates"), each of which shall be registered in the name of the Escrow Agent as escrow agent hereunder evidencing the Escrow Amount. The Escrow Agent shall hold and distribute the Escrow Certificates and Escrow Shares in accordance with the terms hereof.

1.3 Value of Escrow Shares. For all purposes pursuant to this Agreement, including without limitation the distribution of Escrow Shares, the value of each Escrow Share shall be equal to the Assumed Value.

1.4 Powers of Stockholders' Representative. Pursuant to the Merger Agreement, Doug Carlisle has irrevocably been appointed as the Stockholders' Representative to act as the true and lawful agent of the Stockholders and attorney-in-fact with respect to all matters arising in connection with this Agreement, including but not limited to the power and authority on behalf of each Stockholder (other than in his or her own right) to do any one or all of the following:

(a) give any written notices or consents and seek any declaratory judgments, damages or other appropriate relief from a court or other tribunal that the Stockholders' Representative may consider necessary or appropriate;

(b) give any written direction to the Escrow Agent as the Stockholders' Representative may consider necessary or appropriate;

(c) make, execute and deliver such amendments of and supplements to this Agreement or any other agreements, instruments or documents relating hereto that the Stockholders' Representative may consider necessary or appropriate and not materially adverse to the Stockholders' interests hereunder, such authority to be conclusively evidenced by the execution and delivery thereof; and

(d) take all actions and do all things, including but not limited to the execution and delivery of all documents necessary or proper, required, contemplated or deemed advisable by the Stockholders' Representative, including the execution, delivery and surrender of the Escrow Certificates and accompanying stock powers, and generally to act for and in the name of each such Stockholder with respect to this Agreement.

1.5 Stockholder Option. Each Stockholder shall have the option (the "Option"), exercisable by written notice to the Escrow Agent delivered to the Escrow Agent within ten (10) business days of the Closing Date, to demand that the Escrow Agent sell all (but not some) of that portion of the Escrow Shares contributed by such Stockholder on the open market and hold the proceeds from such sale (the "Escrow Proceeds") in the Escrow Fund in lieu of such Escrow Shares. Upon receipt of such demand, the Escrow Agent shall, as soon as

practicable, consummate such sale on behalf of all Stockholders who exercised the Option and deposit the Escrow Proceeds from such sale into the Escrow Fund, less any amounts in excess of the product of the number of shares sold and the Assumed Value (which excess amount may be distributed to the Stockholders exercising the Option). For purposes of this Agreement, the term "Escrow Fund" shall include the Escrow Shares and the Escrow Proceeds.

ARTICLE II

TREATMENT OF ACCUMULATIONS TO ESCROW SHARES

2.1 Escrow Period; Distribution Upon Termination of Escrow Periods. Subject to the following requirements, the Escrow Fund shall be in existence immediately following the Closing Date and shall terminate on the first anniversary of the Closing Date (the "Escrow Period"); provided, however, that the Escrow Period shall not terminate with respect to any amount which, in the reasonable judgment of CIENA, is necessary to satisfy any unsatisfied claims specified in any Officer's Certificate (as defined below) delivered to the Escrow Agent prior to termination of such Escrow Period with respect to facts and circumstances existing prior to the termination of such Escrow Period. The Escrow Agent shall promptly deliver to the Stockholders, and the Escrow Period shall terminate with respect to, the remaining portion of the Escrow Fund not required to satisfy such claims following the termination of the Escrow Period,

provided, however, that any such release shall proportionately release both Escrow Proceeds and Escrow Shares in proportion to the shares of CIENA Common Stock contributed to the Escrow Fund by Stockholders who exercised the Option and those that did not exercise the Option. As soon as all such claims have been resolved and obligations have been satisfied, the Escrow Agent shall deliver to the Stockholders all portions of the Escrow Fund not required to satisfy such claims. Stockholders who did not exercise the Option shall receive a pro rata portion of the Escrow Shares released from the Escrow Fund in proportion to their respective contributions of CIENA Common Stock to the Escrow Fund as compared to the other Stockholders who did not exercise the Option. Stockholders who exercised the Option shall receive a pro rata portion of the Escrow Proceeds released from the Escrow Fund, in proportion to their respective contribution of shares of CIENA Common Stock to the Escrow Fund as compared to the other Stockholders who exercised the Option.

2.2 Protection of Escrow Fund.

(a) The Escrow Agent shall hold and safeguard the Escrow Fund during the Escrow Period, shall treat such fund as a trust fund in accordance with the terms of this Agreement and not as the property of CIENA, and shall hold and dispose of the Escrow Fund only in accordance with the terms hereof.

(b) Any shares of CIENA Common Stock or other equity securities issued or distributed by CIENA (including shares issued upon a stock split) ("New Shares") in respect of CIENA Common Stock in the Escrow Fund which have not been released from the Escrow Fund shall be added to the Escrow Fund and become a part thereof. New Shares issued in respect of shares of CIENA Common Stock which have been released from the Escrow Fund shall not be added to the Escrow Fund but shall be distributed to the record holders thereof. Cash dividends, if any, on CIENA Common Stock shall not be added to the Escrow Fund but shall be distributed to the Stockholders in proportion to their respective original contributions to the Escrow Fund, except that Stockholders who exercised the Option pursuant to SECTION 1.5 shall not be included in such calculation and shall not receive such distribution.

(c) Each Stockholder shall have voting rights and the right to

distributions of cash dividends with respect to the Escrow Shares contributed to the Escrow Fund by such Stockholder and not sold pursuant to SECTION 1.5 (and on any voting securities added to the Escrow Fund in respect of such shares of CIENA Common Stock). As the record holder of such shares, the Escrow Agent shall vote such shares in accordance with the instructions of the Stockholders having the beneficial interest therein and shall promptly deliver copies of all proxy solicitation materials to such Stockholders.

2.3 Additional Property Subject to Escrow. If at any time after the date hereof and prior to the distribution of the Escrow Shares any of the Stockholders shall become entitled to receive or shall receive in connection with the Escrow Shares any (i) non-taxable distribution of securities of CIENA or of any other entity including, without limitation, any certificate in connection with any increase or reduction of capital, reclassification, recapitalization, merger, business combination, consolidation, sale of assets, stock split-up or spin-off; or (ii) any non-taxable distribution of stock options, warrants or rights, whether as an addition to or in substitution of or exchange for any of the Escrow Shares; or (iii) non-taxable stock dividend or other non-taxable distribution payable in securities or property of any description, all of the shares of capital stock, or other property resulting from any such distribution, stock option, warrant, right or stock dividend shall be deemed to be Escrow Shares and shall be subject to the terms hereof to the same extent as the original Escrow Shares. Any cash dividends and any taxable stock dividends paid with respect to the Escrow Shares shall be paid to the Stockholders in accordance with their respective proportionate interests in the Escrow Shares and any taxable stock dividends. Each of the Stockholders shall recognize as income on a current basis all of the cash dividends to which such Stockholder is entitled to receive and for any non-cash dividend and any other non-taxable distribution shall, through the Stockholders' Representative, execute stock powers or other appropriate instruments of transfer for all shares, options, warrants or rights as required for transfer.

2.4 Retained Voting and Other Rights. The Escrow Agent shall hold the Escrow Shares and any additional property acquired with respect thereto pursuant to SECTION 2.3 above in safekeeping and dispose thereof only in accordance with the terms of this Agreement. The Escrow Agent may treat the

Stockholders' Representative as the duly authorized agent and representative of the Stockholders with respect to any additional property related to the Escrow Shares. The Escrow Agent shall hold the Escrow Shares in accordance with each Stockholder's proportionate interest in the Escrow Shares and shall (to the extent legally permissible) vote the Escrow Shares in accordance with the written instructions of the Stockholder for whose account such Escrow Shares are held.

ARTICLE III

DISTRIBUTION OF ESCROW SHARES UPON TERMINATION OF THE AGREEMENT

3.1 Third-Party Claims. In the event CIENA becomes aware of an event which CIENA reasonably believes may result in a demand against the Escrow Fund, CIENA shall notify the Stockholders' Representative of such claim, and the Stockholders shall be entitled, at their expense, to participate in any defense of such claim. CIENA may not settle any such claim without the consent of the Stockholders' Representative, which consent shall not be unreasonably withheld or delayed. In the event that the Stockholders' Representative has consented to any such settlement, the Stockholders shall have no power or authority to object under any provision of this Article to the amount of any claim by CIENA against the Escrow Fund with respect to such settlement.

3.2 Claims Upon Escrow Fund. Upon receipt by the Escrow Agent at any time on or before the last day of the Escrow Period of a certificate signed in good faith by any officer of CIENA (an "Officer's Certificate"): (A) stating that CIENA has paid or properly accrued or, with respect to third-party claims of which CIENA or the Company has received notice, reasonably anticipates that it will have to pay or accrue Losses, and (B) specifying in reasonable detail the individual items of Losses included in the amount so stated, the date each such item was paid or properly accrued, or the basis for such anticipated liability, and the nature of the misrepresentation, breach of warranty or covenant to which such item is related, the Escrow Agent shall deliver to CIENA out of the Escrow Fund, as promptly as practicable, but subject to SECTION 3.3 below, an amount of Escrow Shares and Escrow Proceeds held in the Escrow Fund in the manner set forth in the immediately following sentence, with an aggregate value equal to such Losses; provided, however, that in the event of a third party claim that is the subject of the demand on the Escrow Fund, no Escrow Shares or Escrow Proceeds shall be delivered out of the Escrow Fund until the claim is settled or adjudicated. The Escrow Agent shall allocate any amount of Loss it is required to reimburse to CIENA in accordance with this Agreement among the Stockholders who exercised the Option and those who did not exercise the Option based on the number of shares of CIENA Common Stock contributed to the Escrow Fund at the Closing Date by each such group of Stockholders; thereafter, the Escrow Agent shall pay to CIENA in the form of Escrow Shares (each of which shall be valued at the Assumed Value in accordance with SECTION 1.3 hereof) that amount of the Loss allocated to the Stockholders that did not exercise the Option, and shall pay in form of cash from the Escrow Proceeds that amount of Loss allocated to the Stockholders that exercised the Option. Any Escrow Shares delivered to CIENA out of the Escrow Fund shall (i) reduce each such Stockholder's interest in the Escrow Fund in the form of CIENA Common Stock in proportion to such Stockholder's respective original contributions to the Escrow Fund as compared to other Stockholders that did not exercise the Option and (ii) consist of vested and unvested Escrow Shares ratably in proportion to the amount of vested and unvested shares held in the Escrow Fund with respect to such Stockholder at the time of such delivery.

3.3 Notification of Stockholders' Representative. At the time of delivery of any Officer's Certificate to the Escrow Agent, a duplicate copy of such certificate shall be delivered to the Stockholders' Representative, and for a period of thirty (30) days after such delivery, the Escrow Agent shall make no delivery to CIENA of any Escrow Shares or Escrow Proceeds unless the Escrow Agent shall have received written authorization from the Stockholders' Representative to make such delivery. After the expiration of such thirty (30) day period, the Escrow Agent shall make delivery of Escrow Shares and Escrow Proceeds from the Escrow Fund; provided, however, that no such payment or delivery may be made if the Stockholders' Representative shall object in a written statement to the claim made in the Officer's

Certificate, and such statement shall have been delivered to the Escrow Agent prior to the expiration of such thirty (30) day period.

3.4 Resolution of Conflicts; Arbitration.

(a) In case the Stockholders' Representative shall object in writing to any claim or claims made in any Officer's Certificate, the Stockholders' Representative and CIENA shall attempt in good faith to agree upon the rights of the respective parties with respect to such of such claims. If the Stockholders' Representative and CIENA should so agree, a memorandum setting forth such agreement shall be prepared and signed by both parties and shall be furnished to the Escrow Agent in accordance with the terms thereof.

(b) If no such agreement can be reached after good faith negotiation, either CIENA or the Stockholders' Representative may demand arbitration of the matter unless the amount of the claim or Loss is at issue in pending litigation with a third party, in which event arbitration shall not be commenced until such amount is ascertained or both parties agree to arbitration; and in either such event the matter shall be settled by arbitration conducted by one arbitrator mutually agreeable to CIENA and the Stockholders' Representative. In the event that within forty-five (45) days after submission of any dispute to arbitration, CIENA and the Stockholders' Representative cannot mutually agree on one arbitrator, CIENA and the Stockholders' Representative shall each select one arbitrator, and the two arbitrators so selected shall select a third arbitrator. The arbitrator or arbitrators, as the case may be, shall set a limited time period and establish procedures designed to reduce the cost and time for discovery while allowing the parties an opportunity, adequate in the sole judgment of the arbitrator or majority of the three arbitrators, as the case may be, to discover relevant information from the opposing parties about the subject matter of the dispute. The arbitrator or a majority of the three arbitrators, as the case may be, shall rule upon motions to compel or limit discovery and shall have the authority to impose sanctions, including attorneys' fees and costs, to the same extent as a competent court of law or equity, should the arbitrators or a majority of the three arbitrators, as the case may be, determine that discovery was sought without substantial justification or that discovery was refused or objected to without substantial justification. The decision of the arbitrator or a majority of the three arbitrators, as the case may be, as to the validity and amount of any claim in such Officer's Certificate shall be binding and conclusive upon the parties to this Agreement. Such decision shall be written and shall be supported by written findings of fact and conclusions which shall set forth the award, judgment, decree or order awarded by the arbitrator(s).

(c) Judgment upon any award rendered by the arbitrator(s) may be entered in any court having jurisdiction. Any such arbitration shall be held in Baltimore, Maryland, under the rules then in effect of the American Arbitration Association. The arbitrator(s) shall determine how all expenses relating to the arbitration shall be paid, including without limitation, the respective expenses of each party, the fees of each arbitrator and the administrative fee of the American Arbitration Association.

ARTICLE IV

ESCROW AGENT

4.1 Escrow Agent's Duties.

(a) The Escrow Agent shall be obligated only for the performance of such duties as are specifically set forth herein, and as set forth in any additional written escrow instructions which the Escrow Agent may receive after the date of this Agreement which are signed by an officer of CIENA and the Stockholders' Representative, and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed to be genuine and to have been signed or presented by the proper party or parties. The Escrow Agent shall not be liable for any act done or omitted hereunder as Escrow Agent while acting in good faith and in the exercise of reasonable judgment, and any act done or omitted pursuant to the advice of counsel shall be conclusive evidence of such good faith.

(b) The Escrow Agent is hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person, and is hereby expressly authorized to comply with and obey any final non-appealable

orders, judgments or decrees of any court or of the arbitrator(s). In case the Escrow Agent obeys or complies with any such order, judgment or decree of any court or of the arbitration panel, the Escrow Agent shall not be liable to any of the parties hereto or to any other person by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

(c) The Escrow Agent shall not be liable in any respect on account of the identity, authority or rights of the parties executing or delivering or purporting to execute or deliver this Agreement or any documents or papers deposited or called for hereunder.

(d) The Escrow Agent shall not be liable for the expiration of any rights under any statute of limitations with respect to this Agreement or any documents deposited with the Escrow Agent.

(e) In performing any duties under the Agreement, the Escrow Agent shall not be liable to any party for damages, losses, or expenses, except for negligence or willful misconduct on the part of the Escrow Agent. The Escrow Agent shall not incur any such liability for any action taken or omitted in reliance upon any instrument, including any written statement of affidavit provided for in this Agreement that the Escrow Agent shall in good faith believe to be genuine, nor will the Escrow Agent be liable or responsible for forgeries, fraud, impersonations, or determining the scope of any representative authority. In addition, the Escrow Agent may consult with the legal counsel in connection with Escrow Agent's duties under this Agreement and shall be fully protected in any act taken, suffered, or permitted by him/her in good faith in accordance with the advice of counsel. The Escrow Agent is not responsible for determining and verifying the authority of any person acting or purporting to act on behalf of any party to this Agreement, provided such determination or verification is in good faith.

(f) If any controversy arises between the parties to this Agreement, or with any other party, concerning the subject matter of this Agreement, its terms or conditions, the Escrow Agent will not be required to resolve the controversy or to take any action regarding it. The Escrow Agent may hold all documents, Escrow Shares and Escrow Proceeds and may wait for settlement of any such controversy by final appropriate legal proceedings or other means as, in the Escrow Agent's discretion, the Escrow Agent may reasonably require, despite what may be set forth elsewhere in this Agreement. In such event, the Escrow Agent will not be liable for any damages. Furthermore, the Escrow Agent may at its option, file an action of interpleader requiring the parties to answer and litigate any claims and rights among themselves. The Escrow Agent is authorized to deposit with the clerk of the court all documents, Escrow Shares and Escrow Proceeds held in escrow, except all costs, expenses, charges and reasonable attorney's fees incurred by the Escrow Agent due to the interpleader action and which the parties jointly and severally agree to pay. Upon initiating such action, the Escrow Agent shall be fully released and discharged of and from all obligations and liability by the terms of this Agreement.

(g) The parties and their respective successors and assigns agree jointly and severally to indemnify and hold Escrow Agent harmless against any and all losses, claims, damages, liabilities, and expenses, including reasonable costs of investigation, counsel fees, including allocated costs of in-house counsel and disbursements that may be imposed on Escrow Agent or incurred by Escrow Agent in connection with the performance of his/her duties under this Agreement, including but not limited to any litigation or arbitration arising from this Agreement or involving its subject matter other than arising out of its negligence or willful misconduct.

(h) The Escrow Agent may resign at any time upon giving at least thirty

(30) days written notice to the parties; provided, however, that no such resignation shall become effective until the appointment of a successor escrow agent which shall be accomplished as follows: the parties shall use their best efforts to mutually agree on a successor escrow agent within thirty (30) days after receiving such notice. If the parties fail to agree upon a successor escrow agent within such time, the Escrow Agent shall have the right to appoint a successor escrow agent authorized to do business in the State of Delaware. The successor escrow agent shall execute and deliver an instrument accepting such appointment and it shall, without

further acts, be vested with all the estates, properties, rights, powers, and duties of the predecessor escrow agent as if originally named as Escrow Agent. Upon appointment of a successor escrow agent, the Escrow Agent shall be discharged from any further duties and liability under this Agreement.

4.2 Fees. All fees of the Escrow Agent for performance of its duties hereunder shall be paid by CIENA in accordance with the standard fee schedule of the Escrow Agent. It is understood that the fees and usual charges agreed upon for services of the Escrow Agent shall be considered compensation for ordinary services as contemplated by this Agreement. In the event that the conditions of this Agreement are not promptly fulfilled, or if the Escrow Agent renders any service not provided for in this Agreement, or if the parties request a substantial modification of its terms, or if any controversy arises, or if the Escrow Agent is made a party to, or intervenes in, any litigation or arbitration pertaining to the Escrow Fund or its subject matter, the Escrow Agent shall be reasonably compensated for such extraordinary services and reimbursed for all costs, attorney's fees, including allocated costs of in-house counsel, and expenses occasioned by such default, delay, controversy or litigation or arbitration.

4.3 Consequential Damages. In no event shall the Escrow Agent be liable for special, indirect or consequential loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Escrow Agent has been advised of the likelihood of such loss or damage and regardless of the form of action.

4.4 Successor Escrow Agents. Any corporation into which the Escrow Agent in its individual capacity may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Escrow Agent in its individual capacity shall be a party, or any corporation to which substantially all the corporate trust business of the Escrow Agent in its individual capacity may be transferred, shall be the Escrow Agent under this Escrow Agreement without further act.

ARTICLE V

THE STOCKHOLDERS' REPRESENTATIVE

5.1 Stockholders' Representative Powers and Authority. The Stockholders' Representative shall have full power and authority to represent all of the Stockholders and their successors with respect to all matters arising under this Agreement and the Merger Agreement and all actions taken by the Stockholders' Representative hereunder and thereunder shall be binding upon all such Stockholders and their successors as if expressly confirmed and ratified in writing by each of them. The Stockholders' Representative shall take any and all actions which he believes are necessary or appropriate under this Agreement and the Merger Agreement for and on behalf of the Stockholders, as fully as if the Stockholders were acting on their own behalf, including, without limitation, defending all indemnity claims against the Stockholders pursuant to Section 7.2 of the Merger Agreement (an "Indemnity Claim"), consenting to, compromising or

settling all Indemnity Claims, conducting negotiations with CIENA and its agents regarding such claims, dealing with CIENA and the Escrow Agent under this Agreement and the Merger Agreement with respect to all matters arising under this Agreement and the Merger Agreement, taking any and all other actions specified in or contemplated by this Agreement and the Merger Agreement, and engaging counsel, accountants or other Stockholders' Representatives in connection with the foregoing matters. Without limiting the generality of the foregoing, the Stockholders' Representative shall have full power and authority to interpret all the terms and provisions of this Agreement and the Merger Agreement and to consent to any amendment hereof or thereof on behalf of all such Stockholders and such successors. Notwithstanding the foregoing, each Stockholder shall have the right to exercise any voting rights appertaining to the Escrow Shares.

5.2 Indemnification of Stockholders' Representative. The Stockholders' Representative may act upon any instrument or other writing believed by the Stockholders' Representative in good faith to be genuine and to be signed or presented by the proper person and shall not be liable in connection with the performance by him of his duties pursuant to the provisions of this Agreement, except for his own willful

default or gross negligence. The Stockholders' Representative shall be, and hereby is, indemnified and held harmless, jointly and severally, by the Stockholders from all losses, costs and expenses (including attorneys' fees) that may be incurred by the Stockholders' Representative as a result of the Stockholders' Representative's performance of his duties under this Agreement and the Merger Agreement, provided that the Stockholders' Representative shall not be entitled to indemnification for losses, costs or expenses that result from any action taken or omitted by the Stockholders' Representative as a result of his willful default or gross negligence and provided, further, that each Stockholder's obligation to indemnify the Stockholders' Representative under this Agreement and the Merger Agreement shall be limited to, and payable only from, each Stockholder's pro rata interest in the Escrow Fund and cash available, if any, to the Stockholders under the Escrow Agreement. The Escrow Agent shall from time to time sell such amount of the Escrow Shares as necessary to pay such Stockholders' Representative's costs and expenses, to the extent required by the preceding sentence; provided, however, that such costs and expenses shall be paid with an amount of proceeds from such sales and Escrow Proceeds proportionate to the amounts of Escrow Shares and Escrow Proceeds held in the Escrow Fund.

5.3 Access to Information. The Stockholders' Representative shall have reasonable access to information of and concerning any Indemnity Claim and which is in the possession, custody or control of the Company and the reasonable assistance of the Company's officers and employees for purposes of performing the Stockholders' Representative's duties under this Agreement or the Merger Agreement and exercising its rights under this Agreement and the Merger Agreement, including for the purpose of evaluating any Indemnity Claim against the Escrow Shares by CIENA; provided that the Stockholders' Representative shall treat confidentially and not disclose any nonpublic information from or concerning any Indemnity Claim to anyone (except to the Stockholders' Representative's attorneys, accountants and other advisers, to Stockholders, to the arbitrators appointed to resolve disputes pursuant to this Agreement, and on a need-to-know basis to other individuals who agree to keep such information confidential).

5.4 Reasonable Reliance. In the performance of his duties hereunder, the Stockholders' Representative shall be entitled to rely upon any document or instrument reasonably believed by him to be genuine, accurate as to content and

signed by any Stockholder or CIENA. The Stockholders' Representative may assume that any person purporting to give any notice in accordance with the provisions hereof has been duly authorized to do so.

5.5 Attorney-in-Fact.

(a) The Stockholders' Representative is hereby appointed and constituted the true and lawful attorney-in-fact of each Stockholder, with full power in his, her or its name and on his, her or its behalf to act according to the terms of this Agreement and the Merger Agreement in the absolute discretion of the Stockholders' Representative; and in general to do all things and to perform all acts including, without limitation, executing and delivering this Agreement and any other agreements, certificates, receipts, instructions, notices or instruments contemplated by or deemed advisable in connection with this Agreement.

(b) This power of attorney and all authority hereby conferred is granted and shall be irrevocable and shall not be terminated by any act of any Stockholder, by operation of law, whether by such Stockholder's death, disability protective supervision or any other event. Without limitation to the foregoing, this power of attorney is to ensure the performance of a special obligation and, accordingly, each Stockholder hereby renounces its, his or her right to renounce this power of attorney unilaterally any time before the end of the Escrow Period.

(c) Each Stockholder hereby waives any and all defenses which may be available to contest, negate or disaffirm the action of the Stockholders' Representative taken in good faith under this Agreement.

(d) Notwithstanding the power of attorney granted in this Article V, no agreement, instrument, acknowledgement or other act or document shall be ineffective by reason only of the Stockholders having signed or given such directly instead of the Stockholders' Representative.

5.6 Liability. If the Stockholders' Representative is required by the terms of this Agreement to determine the occurrence of any event or contingency, the Stockholders' Representative shall, in making such determination, be liable to the Stockholders only for his proven bad faith as determined in light of all the circumstances, including the time and facilities available to him in the ordinary conduct of business. In determining the occurrence of any such event or contingency, the Stockholders' Representative may request from any of the Stockholders or any other person such reasonable additional evidence as the Stockholders' Representative in his sole discretion may deem necessary to determine any fact relating to the occurrence of such event or contingency, and may at any time inquire of and consult with others, including any of the Stockholders, and the Stockholders' Representative shall not be liable to any Stockholder for any damages resulting from his delay in acting hereunder pending his receipt and examination of additional evidence requested by him.

5.7 Orders. The Stockholders' Representative is authorized, in his sole discretion, to comply with final, nonappealable orders or decisions issued or process entered by any court of competent jurisdiction or arbitrator with respect to the Escrow Shares and the Escrow Proceeds. If any portion of the Escrow Shares or Escrow Proceeds is disbursed to the Stockholders' Representative and is at any time attached, garnished or levied upon under any court order, or in case the payment, assignment, transfer, conveyance or delivery of any such property shall be stayed or enjoined by any court order, or in case any order, judgment or decree shall be made or entered by any court affecting such property or any part thereof, then and in any such event, the

Stockholders' Representative is authorized, in his sole discretion, but in good faith, to rely upon and comply with any such order, writ, judgment or decree which he is advised by legal counsel selected by him is binding upon him without the need for appeal or other action; and if the Stockholders' Representative complies with any such order, writ, judgment or decree, he shall not be liable to any Stockholder or to any other Person by reason of such compliance even though such order, writ, judgment or decree may be subsequently reversed, modified, annulled, set aside or vacated.

5.8 Removal of Stockholders' Representative; Authority of Successor Stockholders' Representative. Stockholders who in the aggregate hold at least a majority of the Stockholders' interest in the Escrow Fund shall have the right at any time during the term of the Escrow Agreement to remove the then-acting Stockholders' Representative and to appoint a successor Stockholders' Representative; provided, however, that neither such removal of the then acting Stockholders' Representative nor such appointment of a successor Stockholders' Representative shall be effective until the delivery to the Escrow Agent of executed counterparts of a writing signed by each such Stockholder with respect to such removal and appointment, together with an acknowledgment signed by the successor Stockholders' Representative appointed in such writing that he or she accepts the responsibility of successor Stockholders' Representative and agrees to perform and be bound by all of the provisions of this Agreement applicable to the Stockholders' Representative. Each successor Stockholders' Representative shall have all of the power, authority, rights and privileges conferred by this Agreement upon the original Stockholders' Representative, and the term "Stockholders' Representative" as used herein and in the Escrow Agreement shall be deemed to include any interim or successor Stockholders' Representative.

ARTICLE VI

MISCELLANEOUS

6.1 Successors and Assigns. This Agreement shall be binding upon and shall inure to the benefit of Stockholders (by and through the Stockholders' Representative), CIENA and the Escrow Agent, and their respective successors and assigns, whether so expressed or not.

6.2 Waiver of Consent. No failure or delay on the part of any party hereto in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of the parties hereunder are cumulative and not exclusive of any rights or remedies which they would otherwise have. No modification or waiver of any provision of this Agreement, nor consent to any

departure by any party therefrom, shall in any event be effective unless the same shall be in writing, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice to or demand on any party in any case shall entitle such party to any other or further notice or demand in similar or other circumstances.

6.3 Captions. The Article and Section captions used herein are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement.

6.4 Notices. Any notice or other communication required or permitted hereunder shall be sufficiently given if delivered in person or sent by telex, telecopy or by registered or certified mail or by recognized overnight courier, postage prepaid, addressed as follows:

If to CIENA or Merger Sub, to:

CIENA Corporation
1201 Winterson Road
Linthicum, Maryland 21090
Attention: General Counsel
Telecopy: (410) 865-8931

with a copy to its counsel:

Hogan & Hartson L.L.P.
111 South Calvert Street, 16th Floor
Baltimore, Maryland 21202
Attention: Michael J. Silver
Telecopy: (410) 659-2741

if to the Company, to:

Cyras Systems, Inc.
47100 Bayside Parkway
Fremont, California 94538
Attention: General Counsel

with a copy to its counsel:

Brobeck, Phleger & Harrison LLP
Two Embarcadero Place
220 Geng Road
Palo Alto, CA 94303
Attention: Warren T. Lazarow

if to the Escrow Agent, to:

[TO BE PROVIDED]

Telecopy:

if to the Stockholders' Representative, to:

Doug Carlisle
[address]

Such notice or communication shall be deemed to have been given as of the date so delivered, sent by telecopies, telex or mailed.

6.5 Counterparts. This Agreement may be executed in two or more counterparts, all of which shall be considered one and the same agreement and each of which shall be deemed an original.

6.6 Governing Law. The interpretation and construction of this Agreement, and all matters relating thereto, shall be governed by the laws of the State of Delaware, without regard to the choice of law

provisions thereof. Except as set forth in SECTION 3.4(c) with respect to any arbitration commenced pursuant to SECTION 3.4, the non-prevailing party in any dispute arising hereunder shall bear and pay the costs and expenses (including without limitation reasonable attorneys' fees and expenses) incurred by the prevailing party or parties in connection with resolving such dispute.

6.7 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other authority to be invalid, void, unenforceable or against its regulatory policy, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

6.8 Amendments and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given without the written consent of CIENA, the Stockholders' Representative and the Escrow Agent, and any amendment or waiver hereunder shall be effective and binding upon all Stockholders if signed by the Stockholders' Representative.

IN WITNESS WHEREOF, CIENA, Merger Sub and the Escrow Agent have caused their corporate names to be hereunto subscribed by their respective officers thereunto duly authorized, and the Stockholders' Representative has executed this Agreement, all as of the day and year first above written.

CIENA CORPORATION

By:

Patrick H. Nettles, PhD.
Chairman and Chief Executive Officer

CYRAS SYSTEMS, INC.

By:

Name:

Title:

CO ACQUISITION CORP.

By:

Name:

Title:

STOCKHOLDERS' REPRESENTATIVE:

Doug Carlisle

[ESCROW AGENT]

Name:

APPENDIX D

STOCKHOLDER AGREEMENT

STOCKHOLDER AGREEMENT, dated as of December 18, 2000 (this "Agreement"), by the undersigned stockholder (the "Stockholder") of Cyras Systems, Inc., a Delaware corporation (the "Company"), for the benefit of CIENA Corporation, a Delaware corporation ("CIENA").

RECITALS

WHEREAS, CIENA, CO Acquisition Corp., the Company and certain stockholders of the Company are entering into an Agreement and Plan of Merger, dated as of December 18, 2000 (the "Merger Agreement"), whereby, upon the terms and subject to the conditions set forth in the Merger Agreement, each issued and outstanding share of capital stock of the Company ("Company Capital Stock"), not owned directly or indirectly by CIENA or the Company, will be converted into shares of Common Stock, par value $.01 per share, of CIENA ("CIENA Common Stock");

WHEREAS, the Stockholder owns of record and/or holds stock options, warrants or convertible securities to acquire (whether or not vested) that number and class of shares of Company Capital Stock appearing on the signature page hereof (such shares of Company Capital Stock, together with any other shares of capital stock of the Company acquired by such Stockholder after the date hereof and during the term of this Agreement, being collectively referred to herein as the "Subject Shares");

WHEREAS, as a condition to its willingness to enter into the Merger Agreement, CIENA has required that the Stockholder agree, and in order to induce CIENA to enter into the Merger Agreement, the Stockholder has agreed, to enter into this Agreement.

NOW, THEREFORE, in consideration of the promises and the mutual covenants and agreements set forth herein, the Stockholder agrees as follows:

1. Grant of Option. The Stockholder hereby grants CIENA an irrevocable option (the "Option") to purchase the Subject Shares on the terms and subject to the conditions set forth below:

(a) Exercise. At any time or from time to time prior to the termination of the Option granted hereunder in accordance with the terms of this Agreement, CIENA (or a wholly owned subsidiary of CIENA designated by CIENA) may exercise the Option, in whole or in part, if, and only if, on or after the date hereof any of the events described in Section 8.5(b)(ii), (c)(i) or (d)(i) of the Merger Agreement or any other event that would require the Company to pay CIENA the termination fee set forth in Section 8.5(e) of the Merger Agreement occurs (but without the necessity of CIENA having terminated the Merger Agreement) or there shall be a breach by the Stockholder of the covenants in SECTION 4 of this Agreement (any such event, a "Trigger Event"). The Stockholder shall notify CIENA promptly in writing of the occurrence of any Trigger Event of which it is aware; provided, however, that notice shall not be a condition to the right of CIENA to exercise the Option.

(b) Exercise Procedure. In the event CIENA wishes to exercise the Option, CIENA shall deliver to the Stockholder a written notice (an "Exercise Notice") specifying the total number of the Subject Shares it wishes to purchase. Provided that the conditions set forth in paragraph (g) hereof to the Stockholder's obligation to sell the Subject Shares to CIENA hereunder have been satisfied or waived, CIENA shall, upon delivery of the Exercise Notice and tender of the applicable aggregate Exercise Price (as defined below), immediately be deemed to be the holder of record of such

Subject Shares purchasable upon such exercise, notwithstanding that the stock transfer books of the Company shall then be closed or that certificates representing the Subject Shares shall not theretofore have been delivered to CIENA. Each closing of a purchase of such Subject Shares (a "Closing") shall occur at a place, on a date and at a time designated by CIENA in an Exercise Notice delivered at

least two (2) business days prior to the date of the Closing, and shall occur no later than fifteen (15) days after the Exercise Notice is delivered.

(c) Termination of the Option. The Option shall terminate upon the earliest of: (i) the Effective Time of the Merger; (ii) the termination of the Merger Agreement for reasons other than those described in clause (iii) below; and (iii) twelve (12) months following the termination of the Merger Agreement pursuant to Section 8.5(b)(ii), (c)(i) or (d)(i) thereof. Notwithstanding the foregoing, if the Option cannot be exercised by reason of any applicable judgment, decree, order, law or regulation, the Option shall remain exercisable and shall not terminate until the earlier of (x) the date on which such impediment shall become final and not subject to appeal, and (y) 5:00 p.m. New York City Time, on the tenth (10th) business day after such impediment shall have been removed. Notwithstanding the termination of the Option, CIENA shall be entitled to purchase the Subject Shares with respect to which CIENA had exercised the Option prior to such termination.

(d) Exercise Price. The purchase price per share of Subject Shares purchased pursuant to the Option (the "Exercise Price") shall be (i) an amount in cash equal to the product of (x) the Common Stock Exchange Ratio (determined for this purpose as if the date of Closing was the date of the Exercise Notice, and, as so determined, the "Assumed Common Stock Exchange Ratio") multiplied by (y) the average closing price of CIENA Common Stock for the twenty (20) trading days preceding the date the Option is exercised (the "Cash Exercise Price") or (ii) a number of shares of CIENA Common Stock equal to the Assumed Common Stock Exchange Ratio (the "Stock Exercise Price"); provided, however, that the aggregate Cash Exercise Price paid to the Stockholder when aggregated with all other cash purchases of Company Common Stock including cash in lieu of fractional shares by CIENA shall be limited to that amount of cash that would permit any subsequent acquisition of the Company by CIENA that occurs to qualify as a tax free reorganization under the provisions of Section 368(a) of the Code. In the event the Option is exercised to purchase options or warrants, the relevant Cash Exercise Price or Stock Exercise Price shall be reduced by the exercise price of the options or warrants.

(e) Pro Rata Exercise. In the event CIENA determines to exercise the Option in whole or in part, CIENA hereby covenants and agrees that it will purchase the aggregate number of shares of Company Common Stock being sought pro rata from each other Stockholder who has entered into an Agreement on the date hereof that is substantially identical to this Agreement.

(f) Conditions to Closing. The obligation of the Stockholder to sell the Subject Shares to CIENA hereunder is subject to the conditions that (i) all waiting periods, if any, under the HSR Act applicable to the sale of the Subject Shares by Stockholder and the acquisition of the Subject Shares by CIENA hereunder shall have expired or have been terminated; (ii) all consents, approvals, orders or authorizations of, or registrations, declarations or filings with, any federal, state or local administrative

agency or commission or other federal, state or local governmental authority or instrumentality, if any, required in connection with the sale of the Subject Shares by the Stockholder and the acquisition of the Subject Shares by CIENA hereunder shall have been obtained or made, as the case may be; and (iii) no preliminary or permanent injunction or other order by any court of competent jurisdiction prohibiting or otherwise restraining such sale shall be in effect.

(g) Closing. At any Closing, (i) the Stockholder shall deliver to CIENA a certificate or certificates evidencing the Subject Shares being purchased, duly endorsed in blank, or with appropriate stock powers, duly executed in blank, in proper form for transfer, with the signature of the Stockholder thereon guaranteed, and with all applicable taxes paid or provided for; (ii) CIENA shall deliver to the Stockholder (A) by wire transfer of immediately available funds to the account or accounts specified in writing by the Stockholder the aggregate Cash Exercise Price for the Subject Shares so designated and being purchased for cash, and (B) one or more certificates representing shares of CIENA Common Stock equal to the aggregate Stock Exercise Price for the Subject Shares so designated and being purchased by delivery of CIENA Common Stock; and (iii) at which CIENA is exercising the Option in part, CIENA shall present and surrender this Agreement to the

Stockholder, and the Stockholder shall deliver to CIENA an executed new agreement with the same terms as this Agreement evidencing the right to purchase the balance of the Subject Shares purchasable hereunder. If CIENA delivers CIENA Common Stock at Closing, CIENA shall file and use reasonable efforts to have declared effective a shelf Registration Statement covering resale of the CIENA Common Stock on Form S-3 promptly thereafter, and shall maintain the effectiveness thereof until such time as such shares may be sold pursuant to Rule 144 without regard to the volume restrictions under Rule 144(e), subject to the Stockholder's obligation to provide CIENA with all information customarily required regarding selling stockholders in registrations of that type.

2. Representations and Warranties of the Stockholder. The Stockholder hereby represents and warrants to CIENA as follows:

(a) Organization; Authority; Execution and Delivery; Enforceability. The Stockholder (i) is, if not a natural person, duly organized, validly existing and in good standing under the laws of its jurisdiction of organization, and (ii) has the requisite corporate, company, partnership or other power and authority to execute and deliver this Agreement, to consummate the transactions contemplated hereby and to comply with the terms hereof. The execution and delivery by the Stockholder, the consummation by the Stockholder of the transactions contemplated hereby and compliance by the Stockholder with the provisions hereof have been duly authorized by all necessary corporate, company, partnership or other action on the part of the Stockholder and no other corporate, company, partnership or other proceedings on the part of the Stockholder are necessary to authorize this Agreement, to consummate the transactions contemplated hereby or to comply with the provisions hereof. This Agreement has been duly executed and delivered by the Stockholder and constitutes a valid and binding obligation of the Stockholder and, assuming this Agreement constitutes a valid and binding obligation of CIENA, is enforceable against the Stockholder in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other laws affecting the rights and remedies of creditors generally and general principles of equity

(whether considered in a proceeding in equity or at law). The execution and delivery of this Agreement, the consummation of the transactions contemplated hereby and compliance with the provisions hereof do not and will not conflict with, or result in any violation or breach of, or default (with or without notice or lapse of time, or both) under, or give rise to a right of, or result in, termination, cancellation or acceleration of any obligation or to loss of a material benefit under, or result in the creation of any lien in or upon any of the properties or assets of the Stockholder under, or give rise to any increased, additional, accelerated or guaranteed rights or entitlements under, any provision of (i) any certificate of incorporation or by-laws, partnership agreement or limited liability company agreement (or similar organizational documents) of the Stockholder, (ii) any material contract to which the Stockholder is a party or any of the properties or assets of the Stockholder is subject or (iii) subject to the governmental filings and other matters referred to in the following sentence, any (A) statute, law, ordinance, rule or regulation or (B) judgment, order or decree, in each case, applicable to the Stockholder or its properties or assets, other than, in the case of clauses (ii) and (iii) , any such conflicts, violations, breaches, defaults, rights, losses, liens or entitlements that individually or in the aggregate could not reasonably be expected to impair in any material respect the ability of the Stockholder to perform its obligations under this Agreement or prevent or materially impede or delay the consummation of any of the transactions contemplated by this Agreement. No consent, approval, order or authorization of, or registration, declaration or filing with, any Governmental Entity is required by or with respect to the Stockholder in connection with the execution and delivery of this Agreement by such Stockholder, the consummation by the Stockholder of the transactions contemplated hereby or the compliance by the Stockholder with the provisions hereof, except for (1) filings under the Hart-Scott-Rodino Act and any other applicable competition, merger control, antitrust or similar law or regulation, and (2) such other consents, approvals, orders, authorizations, registrations, declarations and filings the failure of which to be obtained or made individually or in the aggregate could not reasonably be expected to impair in any material respect the ability of the Stockholder to perform its obligations under this

Agreement or prevent or materially impede or delay the consummation of any of the transactions contemplated hereby.

(b) The Subject Shares. (i) The Stockholder is the record and beneficial owner of, and has good and marketable title to, the Subject Shares set forth opposite its name on Schedule A hereto, free and clear of any Liens except as set forth on Schedule A. As of the date hereof, other than as set forth on Schedule A hereto, the Stockholder does not own (of record or beneficially) any shares of capital stock of the Company, and the Stockholder does not own (of record or beneficially) any options, warrants, rights or other similar instruments to acquire any capital stock or other voting securities of the Company. Except as set forth on Schedule A, the Stockholder has the sole right to Transfer (as defined in SECTION 4(C)) and direct the voting of the Subject Shares, and none of such Subject Shares is subject to any voting trust or other agreement, arrangement or restriction with respect to the Transfer or the voting of the Subject Shares, except as set forth in SECTIONS 1 and 4 of this Agreement.

(ii) In the event CIENA exercises its Option pursuant to SECTION 1, upon delivery of the Subject Shares covered thereby and payment of the aggregate Exercise Price therefor as contemplated in Section 1, CIENA will receive good and valid title to the Subject Shares free and clear of any

Liens or adverse claims.

(c) Investment Representations of the Stockholder. The Stockholder represents, warrants, and covenants to CIENA as follows: (i) the Stockholder understands that any issuance of CIENA Common Stock to such Stockholder pursuant to this Agreement (the "Restricted Securities") is intended to be exempt from registration under the Securities Act by virtue of Section 4(2) of the Securities Act or Regulation D promulgated thereunder, and that no registration statement relating to the issuance of the Restricted Securities has been or will be filed with the SEC or any state securities commission;

(ii) the Stockholder intends to acquire the Restricted Securities solely for its own account, for investment purposes only and not with a view to the resale or distribution other than pursuant to an effective resale registration statement;

(iii) the Stockholder agrees not to sell (other than pursuant to an effective resale registration statement), transfer, exchange, pledge or otherwise dispose of, or make any offer or agreement relating to the Restricted Securities and/or any option, right or other interest with respect to the Restricted Securities that the Stockholder may acquire, unless: (A) counsel representing the Stockholder, which counsel is reasonably satisfactory to CIENA and CIENA's legal counsel, shall have advised CIENA in a written opinion letter satisfactory to CIENA and CIENA's legal counsel, and upon which CIENA and CIENA's legal counsel may rely, that no registration under the Securities Act would be required in connection with the proposed sale, transfer, exchange, pledge or other disposition, and (B) all transferees (and other subsequent transferees) who receive the Restricted Securities agree to be bound by the investment and other restrictions to which the Stockholder was subject;

(iv) the Stockholder is an "accredited investor" as defined in Rule 501 of Regulation D under the Securities Act, has the capacity to protect the Stockholder's interests in connection with this Agreement, and has such knowledge and experience in financial, tax and business matters to be capable of evaluating the merits and risks of an investment in the Restricted Securities and in protecting the Stockholder's interests in connection with the investment and, in the Stockholder's judgment, has obtained sufficient information from CIENA to evaluate the merits and risks of an investment in the Restricted Securities;

(v) the Stockholder acknowledges that (A) it has conducted its own investigation and review of the business and affairs of CIENA, (B) it has not relied on any representations or warranties of CIENA concerning the business and affairs of CIENA or an investment in the Restricted Securities, (C) it has had the opportunity to ask questions of and receive information and answers from CIENA

concerning the terms and conditions of this Agreement, the Restricted Securities and other matters pertaining to an investment in the Restricted Securities, and (D) it has been given the opportunity to verify the information provided to it in order for the Stockholder to evaluate the merits and risks of an investment in the Restricted Securities, and all such questions have been answered and all such information has been provided to the full satisfaction of the Stockholder;

(vi) the Stockholder further acknowledges, represents, agrees and is aware that the representations, warranties, agreements, undertakings and

acknowledgments made by the Stockholder in this Agreement are made with the intent that they be relied upon by CIENA in determining the suitability of the Stockholder as an investor in the Restricted Securities; and

(vii) the Stockholder undertakes to notify CIENA immediately of any change in any representation, warranty or other information relating to the Stockholder set forth herein.

3. Representations and Warranties of CIENA. CIENA hereby represents and warrants to the Stockholder as follows:

(a) Organization; Authority; Execution and Delivery; Enforceability. CIENA (i) is duly incorporated, validly existing and in good standing under the laws of the State of Delaware and (ii) has all requisite corporate power and authority to execute and deliver this Agreement, to consummate the transactions contemplated hereby and to comply with the terms hereof. The execution and delivery of this Agreement by CIENA, the consummation by CIENA of the transactions contemplated hereby and compliance by CIENA with the provisions hereof have been duly authorized by all necessary corporate action on the part of CIENA and no other corporate proceedings on the part of CIENA are necessary to authorize this Agreement, to consummate the transactions contemplated hereby or to comply with the provisions hereof. This Agreement has been duly executed and delivered by CIENA and, assuming due execution by the Stockholder, constitutes a valid and binding obligation of CIENA enforceable against CIENA in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other laws affecting the rights and remedies of creditors generally and general principles of equity (whether considered in a proceeding in equity or at law). The execution and delivery of this Agreement, the consummation of the transactions contemplated hereby and compliance with the provisions hereof do not and will not conflict with, or result in any violation or breach of, or default (with or without notice or lapse of time, or both) under, or give rise to a right of, or result in, termination, cancellation or acceleration of any obligation or to loss of a material benefit under, or result in the creation of any Lien in or upon any of the properties or assets of CIENA under, or give rise to any increased, additional, accelerated or guaranteed rights or entitlements under, any provision of (i) the Amended and Restated Certificate of Incorporation or Amended and Restated By-laws of CIENA, (ii) any contract to which CIENA is a party or any of its properties or assets is subject or (iii) subject to the governmental filings and other matters referred to in the following sentence, any (A) statute, law, ordinance, rule or regulation or (B) judgment, order or decree, in each case, applicable to CIENA or its properties or assets, other than, in the case of clauses (ii) and (iii) , any such conflicts, violations, breaches, defaults, rights, losses, Liens or entitlements that individually or in the aggregate could not reasonably be expected to impair in any material respect the ability of CIENA to perform its obligations under this Agreement or prevent or materially delay the consummation of any of the transactions contemplated by this Agreement. No consent, approval, order or authorization of, or registration, declaration or filing with, any Governmental Entity is required by or with respect to CIENA in connection with the execution and delivery of this Agreement by CIENA, the consummation by CIENA of the transactions contemplated hereby or compliance by CIENA with the provisions hereof, except for (1) filings under the Hart-Scott-Rodino Act and any other applicable competition, merger control, antitrust or similar law or regulation, (2) filings with the SEC of such reports under the Exchange Act as may be required in connection with this Agreement and the transactions contemplated hereby and (3) such other consents, approvals, orders, authorizations, registrations, declarations and filings the failure of which to be obtained or made individually or in the aggregate could not

reasonably be expected to

184

impair in any material respect the ability of CIENA to perform its obligations under this Agreement or prevent or materially delay the consummation of any of the transactions contemplated hereby

(b) Investment Representations of CIENA. CIENA represents, warrants, and covenants to the Stockholder as follows (except as contemplated by this Agreement and the Merger Agreement and the transactions contemplated thereby):

(i) CIENA does not now have, and as of any Closing will not have, any present plan or intention to sell, transfer, exchange, pledge or otherwise dispose of, or to effect any other transaction with respect to the Subject Shares;

(ii) CIENA understands that any sale of the Subject Shares hereunder is intended to be exempt from registration, and that no registration statement relating to the sale of the Subject Shares in connection with this Agreement has been or will be filed with the SEC or any state securities commission;

(iii) CIENA intends to acquire the Subject Shares solely for its own account, for investment purposes only and not with a view to the resale or distribution thereof;

(iv) CIENA agrees not to sell, transfer, exchange, pledge or otherwise dispose of, or make any offer or agreement relating to the Subject Shares and/or any option, right or other interest with respect to the Subject Shares that CIENA may acquire, unless: (A) counsel representing CIENA, which counsel is reasonably satisfactory to the Company and the Company's legal counsel, shall have advised the Company in a written opinion letter satisfactory to the Company and the Company's legal counsel, and upon which the Company and the Company's legal counsel may rely, that no registration under the Securities Act would be required in connection with the proposed sale, transfer, exchange, pledge or other disposition, and (B) all transferees (and other subsequent transferees) who receive the Subject Shares agree to be bound by the investment and other restrictions to which CIENA was subject;

(v) CIENA is an "accredited investor" as defined in Rule 501 of Regulation D under the Securities Act, has the capacity to protect its interests in connection with this Agreement, and has such knowledge and experience in financial, tax and business matters to be capable of evaluating the merits and risks of an investment in the Subject Shares and in protecting its interests in connection with the investment and, in CIENA's judgment, has obtained sufficient information from the Company to evaluate the merits and risks of an investment in the Subject Shares;

(vi) CIENA acknowledges that (A) it has conducted its own investigation and review of the business and affairs of the Company, (B) it has not relied on any representations or warranties of the Company concerning the business and affairs of the Company or an investment in the Subject Shares, (C) it has had the opportunity to ask questions of and receive information and answers from the Company concerning the terms and conditions of this Agreement, the Subject Shares and other matters pertaining to an investment in the Subject Shares, and (D) it has been given the opportunity to verify the information provided to it

in order for CIENA to evaluate the merits and risks of an investment in the Subject Shares, and all such questions have been answered and all such information has been provided to the full satisfaction of CIENA;

(vii) CIENA further acknowledges, represents, agrees and is aware that the representations, warranties, agreements, undertakings and acknowledgments made by CIENA in this Agreement are made with the intent that they be relied upon by such Stockholder and the Company in determining the suitability of CIENA as an investor in the Subject Shares; and

(viii) CIENA undertakes to notify the Stockholder immediately of any change in any representation, warranty or other information relating to CIENA set forth herein.

4. Covenants of Stockholder. Until the termination of this Agreement in accordance with Section 5, Stockholder agrees as follows:

(a) At the Company Stockholder Meeting (or at any adjournment thereof) or in any other circumstances upon which a vote, consent or other approval with respect to the Merger and the Merger Agreement is sought, the Stockholder shall vote (or cause to be voted) the Subject Shares in favor of the Merger, the adoption of the Merger Agreement and the approval of the terms thereof and each of the other transactions contemplated by the Merger Agreement, including, if the Stockholder owns any Preferred Stock of the Company, automatic conversion of the Preferred Stock as provided for in Article IV.B. Section 3(b)(ii) of the Company's Amended and Restated Certificate of Incorporation;

(b) At any meeting of stockholders of the Company or at any adjournment thereof or in any other circumstances upon which the Stockholder's vote, consent or other approval is sought, the Stockholder shall vote (or cause to be voted) the Subject Shares against (i) any Acquisition Proposal or transaction or occurrence that if proposed and offered to the Company or its stockholders (or any of them) would constitute an Acquisition Proposal (collectively, "Alternative Transactions"), and (ii) any amendment of the Company's Restated Certificate of Incorporation or By-Laws, which amendment would in any manner impede, frustrate, prevent or nullify the Merger, the Merger Agreement or any of the other transactions contemplated by the Merger Agreement or change in any manner the voting rights of any class of capital stock of the Company;

(c) Other than pursuant to this Agreement, the Stockholder agrees not to (i) sell, transfer, pledge, assign or otherwise dispose of (including by gift) (collectively, "Transfer"), or enter into any contract, option or other arrangement (including any profit-sharing arrangement) with respect to the Transfer of the Subject Shares to any person or (ii) enter into any voting arrangement, whether by proxy, voting agreement or otherwise, in relation to the Subject Shares, and agrees not to commit or agree to take any of the foregoing actions;

(d) The Stockholder shall not, nor shall the Stockholder permit any affiliate, director, officer, employee, investment banker, attorney or other advisor or representative of the Stockholder to, (i) directly or indirectly solicit, initiate or knowingly encourage the submission of, any Acquisition Proposal or (ii) directly or indirectly participate in any discussions or negotiations regarding, or furnish to any person any information with respect to, or take any other action to facilitate any

inquiries or the making of any proposal that constitutes or may reasonably be expected to lead to, any Acquisition Proposal; and

(e) The Stockholder shall use the Stockholder's best efforts to take, or cause to be taken, all actions, and to do, or cause to be done, and to assist and cooperate with CIENA in doing, all things necessary, proper or advisable to support and to consummate and make effective, in the most expeditious manner practicable, the Merger and the other transactions contemplated by the Merger Agreement.

5. Termination. Except as set forth below, this Agreement shall terminate at the time when the Option would otherwise expire under SECTION 1(c); provided, however, that the provisions of Sections 4(a), 4(b), 4(d), and 4(e) shall terminate upon the earliest of (i) the Effective Time and (ii) the termination of the Merger Agreement in accordance with its terms. In the event of the termination of this Agreement pursuant to this SECTION 5, except as set forth herein, this Agreement shall forthwith become null and void, there shall be no liability on the part of any of the parties, and except as set forth in this SECTION 5 all rights and obligations of each party hereto shall cease; provided, however, that no such termination of this Agreement shall relieve any party hereto from any liability for any willful and material breach of any provision of this Agreement prior to termination.

6. Further Assurances. The Stockholder will, from time to time, execute and deliver, or cause to be executed and delivered, such additional or further consents, documents and other instruments as CIENA

may reasonably request for the purpose of effectively carrying out the transactions contemplated by this Agreement.

7. Successors, Assigns and Transferees Bound. (a) The Stockholder agrees that this Agreement and the obligations hereunder shall attach the Subject Shares and shall be binding upon any person or entity to which legal or beneficial ownership of the Subject Shares shall pass, whether by operation of law or otherwise, including the Stockholder's heirs, guardians, administrators or successors, and the Stockholder further agrees to take all actions necessary to effectuate the foregoing. The Stockholder agrees that each certificate representing the Subject Shares shall be inscribed with the legend required by SECTION 7(b). In the event of any stock split, stock dividend, reclassification, merger, reorganization, recapitalization or other change in the capital structure of the Company affecting the capital stock of the Company, the number of Subject Shares shall be adjusted appropriately. In the event of any change in the Company Common Stock or CIENA Common Stock by reason of stock dividends, stock splits, mergers (other than the Merger), recapitalizations, combinations, exchange of shares or the like, the type and number of shares or securities subject to the Option, and the purchase price per share provided in SECTION 1(d) hereof, shall be adjusted appropriately, and proper provision shall be made in the agreements governing such transaction so that CIENA shall receive, upon exercise of the Option, the number and class of shares or other securities or property that CIENA would have received in respect of the Company Common Stock if the Option had been exercised immediately prior to such event or the record date therefor, as applicable. In addition, in the event of any other acquisition of additional shares of capital stock of the Company or other voting securities of the Company by the Stockholder (including through the exercise of any warrants, stock options or similar instruments), the number of Subject Shares listed on Schedule A hereto shall be increased appropriately. This Agreement and the representations, warranties, covenants, agreements and obligations hereunder shall attach to any additional shares of capital stock of the Company or other voting securities of the Company issued to or acquired by the Stockholder

directly or indirectly (including through the exercise of any warrants, stock options or similar instruments).

(b) The Stockholder shall cause the certificated Subject Shares to have a legend placed conspicuously on such certificate to the following effect:

> "The shares of common stock evidenced by this certificate are subject to a Stockholder Agreement dated December 18, 2000, entered into by the record owner of such shares and CIENA Corporation."

The Stockholder shall cause a counterpart of this Agreement to be deposited with the Company at its principal place of business or registered office where it shall be subject to the same right of examination by a stockholder of the Company, in person or by agent or attorney, as are the books and records of the Company.

8. Remedies. The Stockholder acknowledges that money damages would be both incalculable and an insufficient remedy for any breach of this Agreement by it, and that any such breach would cause CIENA irreparable harm. Accordingly, the Stockholder agrees that in the event of any breach or threatened breach of this Agreement, CIENA, in addition to any other remedies at law or in equity it may have, shall be entitled, without the requirement of posting a bond or other security, to equitable relief, including injunctive relief and specific performance.

9. Severability. The invalidity or unenforceability of any provision of this Agreement in any jurisdiction shall not affect the validity or enforceability of any other provision of this Agreement in such jurisdiction, or the validity or enforceability of any provision of this Agreement in any other jurisdiction.

10. Amendment. This Agreement may be amended only by means of a written instrument executed and delivered by both the Stockholder and CIENA.

11. Governing Law. This Agreement shall be governed by, and construed in accordance in accordance with, the laws of the State of Delaware, regardless of the laws that might otherwise govern under applicable principles of conflicts of laws thereof.

12. Capitalized Terms. Capitalized terms used in this Agreement that are not defined herein shall have such meanings as set forth in the Merger Agreement.

13. Counterparts. For the convenience of the parties, this Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

14. No Limitation on Actions of the Stockholder as Director. In the event the Stockholder is a director of the Company, notwithstanding anything to the contrary in this Agreement, nothing in this Agreement is intended or shall be construed to require the Stockholder to take or in any way limit any action that the Stockholder may take to discharge the Stockholder's fiduciary duties as a director of the Company.

IN WITNESS WHEREOF, Stockholder has caused this Agreement to be executed as of the date first above written.

(print or type name)

By:

Accepted and Agreed to as of the date set forth above:

CIENA CORPORATION

By:

Name: Michael O. McCarthy, III
Title: Senior Vice President,
General Counsel and Secretary

SCHEDULE A

NAME AND ADDRESS OF STOCKHOLDER	NUMBER OF SUBJECT SHARES OWNED OF RECORD OR PURSUANT TO VESTE UNVESTED OPTIONS, WARRANTS OR CONVERTIBLE
	shares
	stock options or warrants
	Series A Preferred
	Series B Preferred
	Series C Preferred
	Series D Preferred

[LETTERHEAD OF CREDIT SUISSE FIRST BOSTON CORPORATION]

APPENDIX E

DECEMBER 18, 2000

BOARD OF DIRECTORS
CYRAS SYSTEMS, INC.
47100 BAYSIDE PARKWAY
FREMONT, CALIFORNIA 94538

MEMBERS OF THE BOARD:

You have asked us to advise you with respect to the fairness, from a financial point of view, to the holders of the common stock of Cyras Systems, Inc. ("Cyras"), other than affiliates of Cyras, of the Exchange Ratio (as defined below) set forth in the Agreement and Plan of Merger, dated as of December 18, 2000 (the "Agreement"), among CIENA Corporation ("CIENA"), Cyras and CO Acquisition Corp., a wholly owned subsidiary of CIENA ("Merger Sub"). The Agreement provides for, among other things, the merger of Merger Sub with and into Cyras (the "Merger") pursuant to which the outstanding shares of the common stock, par value $0.0001 per share, of Cyras ("Cyras Common Stock") will be

converted into the right to receive a fraction of a share of common stock, par value $0.01 per share, of CIENA ("CIENA Common Stock") equal to the Exchange Ratio. As more fully described in the Agreement, the Exchange Ratio will be equal to the quotient of (i) the sum of (x) 27,000,000 shares of CIENA Common Stock (the "Aggregate Share Consideration") plus (y) the quotient of the aggregate amount receivable from holders of options and warrants (the "Stock Equivalents") to purchase shares of Cyras Common Stock upon the exercise of all Stock Equivalents (assuming they were exercised for cash) divided by the Assumed Value (as defined below) less (z) the shares of CIENA Common Stock issuable to holders of Cyras Preferred Stock (as more fully described in the Agreement) divided by (ii) the sum of the shares of Cyras Common Stock outstanding at the effective time of the Merger and the number of shares of Cyras Common Stock issuable upon exercise of the Stock Equivalents outstanding at the effective time of the Merger less certain adjustments set forth in the Agreement. "Assumed Value" is defined in the Agreement as the lower of (i) the average closing price of a share of CIENA Common Stock as reported on the Nasdaq National Market ("NASDAQ") for the 20 most recent days that CIENA Common Stock has traded ending on the third trading day prior to the effective time of the Merger and (ii) the closing price of a share of CIENA Common Stock as reported on NASDAQ on the last full trading day prior to the effective time of the Merger.

In arriving at our opinion, we have reviewed the Agreement, as well as certain publicly available business and financial information relating to CIENA and certain business and financial information relating to Cyras. We also have reviewed certain other information relating to Cyras and CIENA, including financial forecasts for Cyras and publicly available financial forecasts for CIENA, provided to or discussed with us by Cyras and CIENA, and have met with the managements of Cyras and CIENA to discuss the businesses and prospects of Cyras and CIENA. We also have considered certain financial and stock market data of CIENA and certain financial and other data of Cyras, and we have compared those data with similar data for other publicly held companies in businesses we deemed similar to those of Cyras and CIENA, and we have considered, to the extent publicly available, the financial terms of certain other business combinations and other transactions which have recently been effected. We also considered such other information, financial studies, analyses and investigations and financial, economic and market criteria which we deemed relevant.

In connection with our review, we have not assumed any responsibility for independent verification of any of the foregoing information and have relied on such information being complete and accurate in all material respects. With respect to the financial forecasts relating to Cyras, we have been advised, and have assumed, that such forecasts have been reasonably prepared on bases reflecting the best currently available estimates and judgments of the management of Cyras as to the future financial performance of Cyras. With respect to the financial forecasts relating to CIENA, we have reviewed and discussed with the management of CIENA certain publicly available financial forecasts relating to CIENA and have been advised by the management of CIENA, and have assumed, that such forecasts represent reasonable estimates and judgments as to the future

financial performance of CIENA. In addition, we have relied, without independent verification, upon the assessments of the managements of Cyras and CIENA as to (i) the existing and future technology and products of Cyras and CIENA and the risks associated with such technology and products, (ii) their ability to

integrate the businesses of Cyras and CIENA and (iii) their ability to retain key employees of Cyras and CIENA. We also have assumed, with your consent, that the Merger will be treated as a tax-free reorganization for federal income tax purposes. In addition, we have not been requested to make, and have not made, an independent evaluation or appraisal of the assets or liabilities (contingent or otherwise) of Cyras or CIENA, nor have we been furnished with any such evaluations or appraisals. Our opinion is necessarily based upon information available to us, and financial, economic, market and other conditions as they exist and can be evaluated on the date hereof. We are not expressing any opinion as to what the value of CIENA Common Sock actually will be when issued pursuant to the Merger or the prices at which CIENA Common Sock will trade subsequent to the Merger. In connection with our engagement, we were requested prior to the commencement of negotiations with respect to the Merger to contact, and we held discussions with, selected third parties regarding a possible business combination or similar transaction with Cyras, but we were not requested to, and we did not, solicit generally third party indications of interest in the possible acquisition of all or a part of Cyras. During the negotiations with respect to the merger, Cyras received preliminary unsolicited indications of interest in the purchase of the outstanding capital stock of Cyras from two third parties (one orally and one in writing) which the Board of Directors of Cyras determined not to pursue for various reasons, including, among other things, the enhanced CIENA offer. Our opinion does not address the relative merits of the Merger as compared to other business strategies that might be available to Cyras, including the preliminary unsolicited indications of interest referred to above, nor does it address the underlying business decision of Cyras to proceed with the Merger.

We have acted as financial advisor to Cyras in connection with the Merger and will receive a fee for such services, a significant portion of which is contingent upon the consummation of the Merger. We also will receive a fee upon delivery of this opinion. We and our affiliates in the past have provided financial services to Cyras unrelated to the proposed Merger, for which services we have received compensation. In the ordinary course of business, we and our affiliates may actively trade the securities of CIENA and the debt securities of Cyras for our and our affiliates' accounts and for the accounts of customers and, accordingly, may at any time hold a long or short position in such securities.

It is understood that this letter does not constitute a recommendation to any stockholder as to how such stockholder should vote with respect to any matter relating to the Merger.

Based upon and subject to the foregoing, it is our opinion that, as of the date hereof, the Exchange Ratio is fair, from a financial point of view, to the holders of Cyras Common Stock, other than affiliates of Cyras.

Very truly yours,

CREDIT SUISSE FIRST BOSTON CORPORATION

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 20. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Under Section 145 of the DGCL, a corporation may indemnify its directors, officers, employees and agents and its former directors, officers, employees and agents and those who serve, at the corporation's request, in such capacities

with another enterprise, against expenses (including attorneys' fees), as well as judgments, fines and settlements in nonderivative lawsuits, actually and reasonably incurred in connection with the defense of any action, suit or proceeding in which they or any of them were or are made parties or are threatened to be made parties by reason of their serving or having served in such capacity. The DGCL provides, however, that such person must have acted in good faith and in a manner such person reasonably believed to be in (or not opposed to) the best interests of the corporation and, in the case of a criminal action, such person must have had no reasonable cause to believe his or her conduct was unlawful. In addition, the DGCL does not permit indemnification in an action or suit by or in the right of the corporation, where such person has been adjudged liable to the corporation, unless, and only to the extent that, a court determines that such person fairly and reasonably is entitled to indemnity for costs the court deems proper in light of liability adjudication. Indemnity is mandatory to the extent a claim, issue or matter has been successfully defended.

The Third Restated Certificate of Incorporation of CIENA (the "CIENA Certificate") contains provisions that provide that no director of CIENA shall be liable for breach of fiduciary duty as a director except for (1) any breach of the directors' duty of loyalty to CIENA or its stockholders; (2) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law; (3) liability under Section 174 of the DGCL; or (4) any transaction from which the director derived an improper personal benefit. The CIENA Certificate contains provisions that further provide for the indemnification of directors and officers to the fullest extent permitted by the DGCL. Under the bylaws of CIENA, CIENA is required to advance expenses incurred by an officer or director in defending any such action if the director or officer undertakes to repay such amount if it is determined that the director or officer is not entitled to indemnification. In addition, CIENA has entered into indemnity agreements with each of its directors pursuant to which CIENA has agreed to indemnify the directors as permitted by the DGCL. CIENA has obtained directors and officers liability insurance against certain liabilities, including liabilities under the Securities Act.

ITEM 21. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) EXHIBITS

2.1	Merger Agreement (filed as Appendix A)
3.1 (1)	Certificate of Amendment to Third Restated Certificate of Incorporation
3.2 (1)	Third Restated Certificate of Incorporation
3.3 (1)	Amended and Restated Bylaws
3.5 (10)	Certificate of Amendment to Third Restated Certificate of Incorporation dated March 23, 1998
3.6 (10)	Certificate of Amendment to Third Restated Certificate of Incorporation dated March 16, 2000
4.1 (1)	Specimen Stock Certificate
4.2 (3)	Rights Agreement dated December 29, 1997
4.3 (4)	Amendment to Rights Agreement
4.4 (11)	Amendment No. 2 to Rights Agreement dated September 13, 1998
4.5 (4)	Amendment No. 3 to Rights Agreement dated October 19, 1998
4.6 (12)	Indenture of CIENA Corporation to First Union National Bank as Trustee relating to 3.75% Convertible Notes due February 1, 2008
5.1	Hogan & Hartson L.L.P. Opinion (filed herewith)
8.1	Hogan & Hartson L.L.P. Tax Opinion (filed herewith)
8.2	Brobeck, Phleger & Harrison LLP Tax Opinion (filed herewith)

10.1 (1)	Form of Indemnification Agreement for Directors and Officers

193

10.2 (1)	Amended and Restated 1994 Stock Option Plan
10.3 (1)	Form of Employee Stock Option Agreements
10.4 (1)	1996 Outside Directors Stock Option Plan
10.5 (1)	Forms of 1996 Outside Directors Stock Option Agreement
10.6 (1)	Series C Preferred Stock Purchase Agreement dated December 20, 1995
10.7 (1)	Lease Agreement dated October 5, 1995 between the Company and CS Corridor-32 Limited Partnership
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10.15 (1)	Revolving Note and Business Loan Agreement dated November 25, 1996 between the Company and Mercantile-Safe Deposit & Trust Company
10.16 (1)(8)	First Addendum to Procurement Agreement between the Registrant and Sprint/United Management Company dated December 19, 1996
10.17 (5)	Third Addendum to Procurement Agreement between the Registrant and Sprint/United Management Company
10.18 (5)	Form of Transfer of Control/Severance Agreement
10.19 (6)	Lightera 1998 Stock Option Plan and Form of Stock Option Agreement
10.20 (7)	Omnia Communications, Inc. 1997 stock plan and form of agreements
10.21 (9)	Employment Agreement dated August 18, 1999 between the Company and Gary B. Smith
10.22 (9)	1999 Non-Officer Stock Option Plan and Form of Stock Option Agreement
10.23 (9)	Lease Agreement dated June 1, 1999 between the Company and Ridgeview Court Associates, L.L.C.
21 (2)	Subsidiaries of Registrant
23.1	Consent of PricewaterhouseCoopers LLP (filed herewith)
23.2	Consent of Deloitte & Touche LLP (filed herewith)
23.3	Consent of Hogan & Hartson L.L.P. (included in Exhibit 5.1)
23.4	Consent of Brobeck, Phleger & Harrison, LLP (included in Exhibit 8.2)
24.1	Powers of Attorney (previously filed with signature page)
99.1	Form of Proxy Card for Common Stockholders (filed herewith)
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(1) Incorporated by reference from the Company's Registration Statement on Form S-1 (333-17729).

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(12) Incorporated by reference from the Company's Form 10-Q dated February 15, 2001.

ITEM 22. UNDERTAKINGS

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes to respond to requests for information that is incorporated by reference into the prospectus pursuant to Item 4, 10(b), 11 or 13 of this form, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of this Registration Statement through the date of responding to the request.

The undersigned registrant hereby undertakes to supply by means of a post-effective amendment all information concerning a transaction, and the

company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in this Registration Statement.

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

195

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned registrant hereby undertakes as follows: that prior to any public reoffering of the securities registered hereunder through the use of a prospectus which is a part of this registration statement, by any person or

party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other items of the applicable form.

The registrant undertakes that every prospectus: (i) that is filed pursuant to the paragraph immediately preceding, or (ii) that purports to meet the requirements of Section 10(a)(3) of the Act and is used in connection with an offering of securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, CIENA has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Linthicum, Maryland, on this 28th day of February, 2001.

CIENA CORPORATION

By: /s/ PATRICK H. NETTLES, PH.D.

Patrick H. Nettles, Ph.D.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Date: February 28, 2001	/s/ PATRICK H. NETTLES, PH.D. --- Patrick H. Nettles, Ph.D. Chief Executive Officer, Chairman of the Board of Directors Principal Executive Officer
Date: February 28, 2001	/s/ GARY B. SMITH* --- Gary B. Smith President, Chief Operating Officer and Director
Date: February 28, 2001	/s/ JOSEPH R. CHINNICI* --- Joseph R. Chinnici Sr. Vice President, Finance and Chief Financial Officer Principal Financial Officer

Date: February 28, 2001 /s/ ANDREW C. PETRIK*

Andrew C. Petrik
Vice President, Controller and Treasurer
Principal Accounting Officer

Date: February 28, 2001 /s/ STEPHEN P. BRADLEY*

Stephen P. Bradley
Director

Date: February 28, 2001 /s/ HARVEY B. CASH*

Harvey B. Cash
Director

Date: February 28, 2001 /s/ JOHN R. DILLON*

John R. Dillon
Director

Date: February 28, 2001 /s/ LAWTON W. FITT*

Lawton W. Fitt
Director

Date: February 28, 2001 /s/ JUDITH M. O'BRIEN*

Judith M. O'Brien
Director

Date: February 28, 2001

Gerald H. Taylor
Director

* pursuant to power of attorney
By: /s/ PATRICK H. NETTLES, PH.D.
Patrick H. Nettles, Ph.D.
Attorney-in-Fact

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199

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