
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

PRE-EFFECTIVE AMENDMENT NO. 2 TO

FORM S-4

REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

CIENA Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

3661
(Primary Standard Industrial
Classification Code Number)

23-2725311
(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)

Russell B. Stevenson, Jr.

Senior Vice President, General Counsel and Secretary
CIENA Corporation
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
Stephanie D. Marks
Hogan & Hartson L.L.P.
111 South Calvert Street
Baltimore, MD 21202
(410) 659-2700

Richard L. Dickson
Horace L. Nash
David A. Bell
Fenwick & West LLP
Two Palo Alto Square
Palo Alto, CA 94306
(650) 494-0600

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 February 17, 2002, 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. o _____

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.

The information in this joint proxy statement/prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This joint proxy statement/prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

Preliminary Prospectus Dated May 13, 2002



Dear CIENA and ONI Systems stockholders:

On behalf of the boards of directors and management teams of both CIENA and ONI Systems, we are pleased to deliver our joint proxy statement/prospectus for the proposed acquisition of ONI Systems by CIENA. In the merger, each ONI Systems stockholder will receive 0.7104 shares of CIENA common stock for each share of ONI Systems common stock and will become a stockholder of CIENA. CIENA common stock is traded on the Nasdaq Stock Market under the trading symbol "CIEN." The closing price for CIENA common stock reported on the Nasdaq National Market on May 10, 2002 was \$6.53 per share. ONI Systems common stock is also traded on the Nasdaq Stock Market under the trading symbol "ONIS." The closing price for ONI Systems common stock reported on the Nasdaq National Market on May 10, 2002 was \$4.61 per share.

CIENA will issue approximately 100,500,000 shares in the merger to holders of ONI Systems outstanding common stock, plus up to approximately 16,500,000 shares of CIENA common stock upon exercise of ONI Systems outstanding stock options, rights and warrants assumed in the merger. As of May 9, 2002, based on 329,689,850 outstanding shares of CIENA common stock and assuming that none of the ONI Systems options, rights or warrants have been exercised, ONI Systems stockholders would own approximately 23.4% of the combined company and CIENA stockholders would own approximately 76.6% of the combined company following the merger.

This is the joint proxy statement/prospectus of CIENA and ONI Systems relating to CIENA's offering of shares of CIENA common stock to ONI Systems stockholders in the proposed merger. It contains important information about CIENA, ONI Systems, the terms of the proposed merger and the conditions that 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 13 of this joint proxy statement/prospectus.**

Completion of the merger requires the approval of both CIENA and ONI Systems stockholders. CIENA and ONI Systems have scheduled special meetings of their stockholders to obtain these approvals on _____, 2002. Information regarding these special meetings is included in this joint proxy statement/prospectus. The CIENA board of directors recommends that CIENA stockholders vote "FOR" the proposal to approve and adopt the merger agreement and approve the merger. The ONI Systems board of directors recommends that ONI Systems stockholders vote "FOR" the proposal to approve and adopt the merger agreement and approve the merger.

Your vote is very important. Please vote on your company's proposals by signing and dating the enclosed proxy card or voting instruction card today and returning it in the pre-addressed envelope provided.

Thank you for your support.

Gary B. Smith

Hugh C. Martin

Prospectus dated _____, 2002

First mailed to stockholders on or about _____, 2002

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.

CIENA CORPORATION

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

NOTICE OF THE SPECIAL MEETING OF STOCKHOLDERS

Time and Date	, local time, on , 2002
Place	BWI Marriott Hotel, 1743 W. Nursery Road, Linthicum, Maryland 21090
Items of Business	(1) To consider and vote upon a proposal to approve and adopt the Agreement and Plan of Merger between CIENA Corporation and ONI Systems Corp. and approve the merger and the issuance of CIENA common stock contemplated by the Agreement and Plan of Merger. (2) To consider and vote upon a proposal to grant CIENA's board of directors discretionary authority to adjourn the special meeting to solicit additional votes for the approval of the merger. (3) To consider and vote on such other matters as may properly come before the special meeting or any adjournment or postponement of the special meeting.
Adjournments and Postponements	Any action on the items described above may be considered at the special meeting at the time and on the date specified above or at any time and date to which the special meeting may properly be adjourned or postponed.
Record Date	You are entitled to vote only if you were a CIENA stockholder at the close of business on May 9, 2002.
Voting	Your vote is very important. Whether or not you plan to attend the special meeting, we encourage you to read this joint proxy statement/prospectus and submit your proxy or voting instructions for the special meeting as soon as possible. You may submit your proxy or voting instructions for the special meeting by completing, signing, dating and returning the proxy card or voting instruction card in the pre-addressed envelope provided. For specific instructions on how to vote your shares, please refer to the section entitled "The Special Meeting of CIENA Stockholders" beginning on page of this joint proxy statement/ prospectus and the instructions on the proxy card or voting instruction card.

By order of the Board of Directors

Russell B. Stevenson, Jr.
Senior Vice President, General Counsel and
Secretary

, 2002
Linthicum, Maryland

ONI SYSTEMS CORP.

5965 Silver Creek Valley Road
San Jose, CA 95138
(408) 965-2600

NOTICE OF THE SPECIAL MEETING OF STOCKHOLDERS

Time and Date _____, local time, on _____, 2002

Place _____

Items of Business (1) To consider and vote upon a proposal to approve and adopt the Agreement and Plan of Merger between CIENA Corporation and ONI Systems Corp. and approve the merger contemplated by the Agreement and Plan of Merger.

(2) To consider and vote upon a proposal to grant ONI Systems' board of directors discretionary authority to adjourn the special meeting to solicit additional votes for the approval of the merger.

(3) To consider and vote on such other matters as may properly come before the special meeting or any adjournment or postponement of the special meeting.

Adjournments and Postponements Any action on the items described above may be considered at the special meeting at the time and on the date specified above or at any time and date to which the special meeting may properly be adjourned or postponed.

Record Date You are entitled to vote only if you were an ONI Systems stockholder at the close of business on May 9, 2002.

Voting Your vote is very important. Whether or not you plan to attend the special meeting, we encourage you to read this joint proxy statement/prospectus and submit your proxy or voting instructions for the special meeting as soon as possible. You may submit your proxy or voting instructions for the special meeting by completing, signing, dating and returning the proxy card or voting instruction card in the pre-addressed envelope provided. For specific instructions on how to vote your shares, please refer to the section entitled "The Special Meeting of ONI Systems Stockholders" beginning on page _____ of this joint proxy statement/prospectus and the instructions on the proxy card or voting instruction card.

By order of the Board of Directors

Michael A. Dillon
Vice President, General Counsel and Secretary

_____, 2002
San Jose, California

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This joint proxy statement/prospectus incorporates important business and financial information about CIENA and ONI Systems from documents that each company has filed with the Securities and Exchange Commission but that have not been included in or delivered with this joint proxy statement/ prospectus. For a listing of documents incorporated by reference into this joint proxy statement/prospectus, please see the section entitled “Where You Can Find More Information” beginning on page of this joint proxy statement/ prospectus.

CIENA will provide you with copies of this information relating to CIENA, without charge, upon written or oral request to:

CIENA Corporation
1202 Winterson Road
Linthicum, Maryland 21090
Attention: Investor Relations
Telephone Number: (410) 865-8500

In addition, you may obtain copies of this information by sending an e-mail to ir@ciena.com. A list of those stockholders entitled to vote at the special meeting will be available for inspection for ten days preceding the meeting at the address set forth above, and will also be available for inspection at the meeting itself.

ONI Systems will provide you with copies of this information relating to ONI Systems, without charge, upon written or oral request to:

ONI Systems Corp.
5965 Silver Creek Valley Road
San Jose, California 95138
Attention: Investor Relations
Telephone Number: (408) 571-4050

In addition, you may obtain copies of this information by sending an e-mail to ir@oni.com. A list of those stockholders entitled to vote at the special meeting will be available for inspection for ten days preceding the meeting at the address set forth above, and will also be available for inspection at the meeting itself.

In order for you to receive timely delivery of the documents in advance of the special meetings, CIENA or ONI Systems should receive your request no later than .

QUESTIONS AND ANSWERS ABOUT THE STOCKHOLDERS MEETINGS

Q: When and where will the special meetings take place?

A: *ONI Systems Stockholders:* The special meeting will be held on _____, 2002, at _____ a.m., local time, at _____.

CIENA Stockholders: The special meeting will be held on _____, 2002, at _____ a.m., local time, at the BWI Marriott Hotel, 1743 W. Nursery Road, Linthicum, Maryland 21090.

Q: What do I need to do now?

A: You should carefully read and consider the information contained in this joint proxy statement/ prospectus. 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 your company'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 and "FOR" the grant of discretionary authority to adjourn the special meeting. Failure to vote, return your proxy card or to give voting instructions to your broker or nominee will have the same effect as voting "AGAINST" the proposal to approve the merger.

Q: Who must approve the merger?

A: In addition to the approvals of the boards of directors of CIENA and ONI Systems which have already been obtained, the stockholders of both ONI Systems and CIENA must also approve the merger.

Q: If my shares are held in "street name" by my broker, will my broker vote my shares for me?

A: Your broker will not be able to vote your shares unless you provide instructions on how to vote your shares. You should instruct your broker to vote your shares following the directions provided by your broker. Without instructions, your shares will not be voted and you will, in effect, be voting against the merger.

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 your company's stockholders. You can do this in one of three ways. First, you can send a written notice stating that you would like to revoke your proxy. Second, you can complete and submit a new proxy. If you choose either of these two methods, you must submit your notice of revocation or your new proxy for CIENA shares at the address on page _____ and for ONI Systems shares at the address on page _____. Third, you can attend the special meeting of your company's stockholders and vote in person. Your attendance alone will not revoke your proxy. If you have instructed a broker to vote your shares, you must follow the directions received from your broker to change those instructions.

Q: Should I send in my certificates now?

A: **No, you should not send in your stock certificates with your proxy.** ONI stockholders will receive instructions for exchanging their stock certificates if the merger is consummated. CIENA stockholders will not exchange their certificates.

Q: Who can help answer my questions?

A: If you have any questions about the merger, how to vote or revoke your proxy, or if you need additional copies of this joint proxy statement/ prospectus or the enclosed proxy, you should contact:

ONI Systems:
Innisfree M&A Incorporated
501 Madison Avenue, 20th Floor
New York, New York 10022
(212) 750-5833

CIENA Corporation:
Georgeson Shareholder Communications, Inc.

17 State Street
New York, New York 10004
(212) 440-9800

SUMMARY

This summary highlights selected information from this joint proxy statement/prospectus. It does not contain all of the information that is important to you. You should carefully read this joint proxy statement/prospectus and the other documents incorporated by reference into this joint proxy statement/prospectus. See "Where You Can Find More Information" on page . In this joint proxy statement/prospectus, "we," "us" and "our" may refer to either CIENA or ONI Systems, depending on the context in which they are used, and "you" and "your" refer to stockholders of ONI Systems or stockholders of CIENA, depending on the context in which they are used.

The Companies (page)

CIENA Corporation

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

CIENA is a leader in the intelligent optical networking equipment industry. CIENA offers a portfolio of products for communications service providers worldwide. CIENA's customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers and 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. CIENA's strategy is to use its technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage.

During fiscal 2002, reflecting the dramatic downturn affecting the telecommunications industry, CIENA has reduced its workforce by % and has incurred or expects to incur restructuring charges associated with those reductions and write-downs of assets of between \$ and \$ during the first two quarters of fiscal 2002. CIENA's net loss was \$1,794.1 million for fiscal 2001 and \$70.6 million for the first quarter of fiscal 2002. These losses were principally related to the downturn in the telecommunications industry and the writedown of assets acquired from Cyras Systems, Inc. in March 2001.

ONI Systems Corp.

5965 Silver Creek Valley Road
San Jose, CA 95138
(408) 571-4050

ONI Systems develops, markets and sells optical communications networking equipment specifically designed to address the bandwidth and service limitations of metropolitan area and regional networks. ONI Systems' equipment uses pulses of light rather than electric current in the transmission and routing of telephone, Internet and other data communications in these networks. Communications service providers can cost-effectively deploy ONI Systems' products to relieve the traffic bottleneck in their networks and offer new data communication services to their customers. ONI Systems' products help service providers to rapidly build high capacity networks that are flexible, easy to expand and capable of supporting multiple services on a single platform. In addition, ONI Systems' equipment can be introduced into a network without requiring complete replacement of the existing network infrastructure.

During the third quarter of 2001, in response to the dramatic downturn affecting the telecommunications industry, ONI Systems also implemented a restructuring program that included a reduction in force, consolidation of facilities and reduced manufacturing levels. ONI Systems recorded restructuring costs and other special charges of an aggregate of \$67.6 million in the third quarter and \$9.7 million in the fourth quarter of 2001. ONI Systems' net loss was \$188.3 million for fiscal 2001 and \$42.2 million for the first quarter of fiscal 2002. These losses were principally related to the downturn in the telecommunications industry, a one time charge for in-process research and development associated with the acquisition of technology from Finisar, charges related to the writedown of inventory and other assets and restructuring charges related to the closing of certain facilities and a reduction in force.

Vote Required (page)

Holders of a majority of the outstanding shares of CIENA common stock must vote in favor of the merger before the merger can occur. There were 329,689,850 shares of CIENA common stock outstanding as of May 9, 2002. Each holder of CIENA common stock is entitled to one vote per share. CIENA's officers, directors and their re-

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spective affiliates owned 3.16% of CIENA's outstanding stock as of the record date.

Holders of a majority of the outstanding shares of ONI Systems common stock must also vote in favor of the merger before the merger can occur. There were _____ shares of ONI Systems common stock outstanding as of May 9, 2002. Each holder of ONI Systems common stock is entitled to one vote per share. ONI Systems' officers, directors and their respective affiliates owned _____ % of ONI Systems' outstanding stock as of the record date.

Several executive officers and directors of ONI Systems and their affiliates owning in the aggregate _____ shares of ONI Systems common stock, representing approximately _____ % of the outstanding ONI Systems' common stock as of the record date, have entered into agreements with CIENA to vote their shares in favor of the merger.

The Merger (page _____)

The merger agreement provides that ONI Systems will merge with and into CIENA and CIENA will be the surviving company.

The merger agreement is included as Annex A to this joint proxy statement/prospectus. It is the legal document that governs the merger.

Reasons for the Merger and Recommendation of the CIENA Board of Directors (page _____)

The CIENA board of directors has determined that the merger is advisable and in the best interests of CIENA and its stockholders. The CIENA board of directors recommends that CIENA stockholders vote **"FOR"** the proposal to approve and adopt the merger agreement and approve the merger.

See "The Merger — Recommendation of CIENA's Board of Directors and Reasons for the Merger" for the reasons supporting the CIENA board of directors' recommendations.

Reasons for the Merger and Recommendation of the ONI Systems Board of Directors (page _____)

The ONI Systems board of directors has determined that the merger is advisable and in the best interests of ONI Systems and its stockholders. The ONI Systems board of directors recommends that ONI Systems stockholders vote **"FOR"** the proposal to approve and adopt the merger agreement and approve the merger.

See "The Merger — Recommendation of the ONI Systems Board of Directors and Reasons for the Merger" for the reasons supporting the ONI Systems board of directors' recommendations.

What You Will Receive in the Merger (page _____)

Each outstanding share of ONI Systems common stock will be cancelled and each ONI Systems stockholder will receive 0.7104 shares of CIENA common stock for each share of ONI Systems common stock that the stockholder owns. An ONI Systems stockholder will also receive a cash payment for any fraction of a share of CIENA common stock that the stockholder would otherwise be entitled to receive.

Because the number of shares of CIENA common stock to be received for each share of ONI Systems common stock is fixed, ONI Systems stockholders will not know the value of the CIENA common stock they will receive in the merger when the special meeting of the ONI Systems stockholders is held. The value of the CIENA common stock will depend upon its market price when the merger is completed.

For example, an ONI Systems stockholder who owns 100 shares of ONI Systems common stock upon completion of the merger will receive 71 shares of CIENA common stock plus cash equal to 0.04 times the closing price of a share of CIENA stock on the Nasdaq National Market on the closing date. The value received by that ONI Systems stockholder would vary as shown in the chart below depending on the market price of the CIENA common stock. The chart does not include cash received for fractional shares.

Illustrative Price of CIENA Common Stock at Closing	Number of Shares of CIENA Common Stock Issued at Closing	Value of Shares of CIENA Common Stock Issued at Closing
\$5.00	71	\$355
\$6.53*	71	\$464
\$7.00	71	\$497
\$9.00	71	\$639

* The closing price of CIENA common stock on May 10, 2002.

Total Consideration CIENA Will Pay

At the effective time of the merger, CIENA will issue approximately 100,500,000 shares of its

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common stock in exchange for all of ONI Systems outstanding common stock. As of April 26, 2002, these shares have an aggregate value of approximately \$753,750,000. CIENA will also assume the obligation to issue an additional approximately 16,500,000 shares of CIENA common stock on the exercise of outstanding stock options, rights and warrants. In addition, CIENA will assume the \$300,000,000 aggregate principal amount 5% convertible subordinated notes of ONI Systems, and these notes may, at the election of the holders, be convertible into CIENA common stock at a conversion price of \$128.99 per share.

ONI Systems Employee Stock Options

Each outstanding option to purchase shares of ONI Systems common stock will be converted into an option to purchase a number of shares of CIENA common stock equal to the number of shares of ONI Systems common stock that were subject to the option multiplied by 0.7104. The exercise price per share for each ONI Systems option will be divided by 0.7104. Except for some acceleration of vesting for some officers that will occur as a result of the merger under the terms of their offer letters from ONI Systems, all other terms of the options will remain unchanged.

What is Needed to Complete the Merger (page)

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

- approval of the merger by stockholders representing a majority of the outstanding shares of each of ONI Systems and CIENA;
- receipt by ONI Systems and CIENA of confirming opinions of tax counsel described below; and
- other customary contractual conditions set forth in the merger agreement.

If the law permits, CIENA or ONI Systems may each waive conditions for the benefit of their company and stockholders and complete the merger even though one or more of these conditions has not been met. Stockholder approval may not be waived. If a material condition is waived by either CIENA or ONI Systems, the company waiving the condition intends to resolicit the vote of its stockholders. We cannot assure you that the conditions will be satisfied or waived or that the merger will occur.

Termination of the Merger Agreement (page)

CIENA and ONI Systems may mutually agree at any time to terminate the merger agreement without completing the merger, even if the ONI Systems or CIENA 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 September 30, 2002;
- the stockholders of either ONI Systems or CIENA do not approve the merger; or
- a court forbids the merger to occur.

ONI Systems may terminate the merger agreement prior to obtaining stockholder approval if:

- the ONI Systems board of directors determines to enter into an alternative transaction that it views as superior, or
- if CIENA's board of directors changes its recommendation to stockholders in favor of the merger.

CIENA may similarly terminate the merger agreement if ONI Systems' board of directors withdraws, modifies or amends, in any respect adverse to CIENA, its recommendation to stockholders in favor of the merger.

Fees and Expenses (page)

ONI Systems agreed to pay CIENA a termination fee of \$36.7 million and up to \$2 million in expenses if:

- the merger agreement is terminated because of a change in ONI Systems' board of directors recommendation (unless due to a material adverse effect on CIENA), or
- if ONI Systems accepts an alternative superior proposal.

ONI Systems also must pay this termination fee and expenses if:

- there is a change in ONI Systems' board of directors recommendation and CIENA terminates the agreement, or
- ONI Systems' stockholders do not approve the merger,

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and there is a publicly announced third party offer to acquire ONI Systems, which ONI Systems accepts within 12 months of the termination.

CIENA agreed to pay ONI Systems a similar fee and expense reimbursement if ONI Systems terminates the merger agreement because of a change in the CIENA board of director's recommendation. However, if ONI Systems' board of directors terminates the merger agreement because

- of a change in the CIENA board of directors recommendation, or
- the CIENA stockholders do not approve the merger,

and there is a publicly announced third party offer to acquire CIENA, which CIENA accepts within 12 months of the termination, then CIENA in most cases will pay ONI Systems a termination fee of \$87.2 million, plus expenses of \$2 million. There are also circumstances where terminations may occur without payment of any termination fees.

Federal Income Tax Consequences (page)

CIENA has received an opinion of Hogan & Hartson L.L.P., its counsel, and ONI Systems has received an opinion of Fenwick & West LLP, its counsel, that the merger will qualify as a tax-free reorganization which means that no gain or loss will be recognized by CIENA or ONI Systems stockholders as a result of the merger, except with respect to cash received by ONI Systems stockholders in lieu of fractional shares. For a further discussion of the federal income tax consequences of the merger, see "The Merger — Federal Income Tax Consequences." 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.

No Appraisal Rights for Dissenting Stockholders (page)

Neither CIENA stockholders nor ONI Systems stockholders are entitled to dissenters' rights of appraisal for their shares under the Delaware General Corporation Law in connection with the merger.

Opinion of CIENA's Financial Advisor (page)

On February 15, 2002, Morgan Stanley delivered its opinion to the CIENA board of directors, that, as of February 15, 2002, the exchange ratio pursuant to the merger agreement was fair to CIENA from a financial point of view. The full text of Morgan Stanley's opinion is attached as Annex D to this joint proxy statement/ prospectus. Stockholders of CIENA are urged to read this opinion in its entirety. Morgan Stanley's opinion does not constitute a recommendation as to how any stockholder should vote with respect to the merger.

Opinion of ONI Systems' Financial Advisor (page)

On February 15, 2002, Goldman Sachs proffered its oral opinion to the ONI Systems board of directors, which opinion was subsequently confirmed in writing on February 17, 2002 that, as of the date of that opinion, the exchange ratio was fair from a financial point of view to the holders of shares of ONI Systems common stock. In addition, on March 18, 2002, at the request of the ONI Systems board of directors, Goldman Sachs delivered its opinion to the ONI Systems board of directors, subsequently confirmed in writing, that, as of the date of that opinion, the exchange ratio was fair from a financial point of view to the holders of shares of ONI Systems common stock. The full text of Goldman Sachs' opinion, dated March 18, 2002, is attached as Annex E to this joint proxy statement/prospectus. Stockholders of ONI Systems are urged to read this opinion in its entirety. The opinion of Goldman Sachs does not constitute a recommendation as to how any stockholder should vote with respect to the merger.

**SUMMARY SELECTED CONSOLIDATED HISTORICAL FINANCIAL DATA
OF CIENA AND ONI SYSTEMS**

Summary Selected Consolidated Historical Financial Data of CIENA

The information in the following summary selected consolidated financial data as of October 31, 1997, 1998, 1999, 2000 and 2001 and for the years ended October 31, 1997, 1998, 1999, 2000 and 2001 is derived from CIENA's audited consolidated financial statements. You should read this information in conjunction with the financial statements and notes to the consolidated financial statements which are incorporated by reference into this joint proxy statement/prospectus. See "Where You Can Find More Information" which begins on page . CIENA's financial statements as of October 31, 2000 and 2001 and for each of the three years ended October 31, 2001 were audited by PricewaterhouseCoopers LLP, independent accountants. Selected financial information as of January 31, 2001 and 2002 and for the three months then ended is derived from CIENA's unaudited consolidated financial statements, which are incorporated into this joint proxy statement/prospectus 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 2001 comprised 53 weeks. Historical events are not necessarily indicative of results to be expected in the future and results of interim periods are not necessarily indicative of the results of the entire year.

	As of October 31,					As of January 31,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands)						
Balance Sheet Data:							
Cash and cash equivalents	\$273,286	\$250,714	\$143,440	\$ 143,187	\$ 397,890	\$ 176,725	\$ 472,533
Working capital	338,078	391,305	427,471	639,675	1,936,707	724,025	1,653,035
Total assets	468,247	602,809	677,835	1,027,201	3,317,301	1,167,152	3,218,778
Long-term obligations, excluding current portion	1,900	3,029	4,881	4,882	869,865	4,986	695,740
Stockholders' equity	\$377,278	\$501,036	\$530,473	\$ 809,835	\$2,128,982	\$ 921,861	\$2,068,365

	Year Ended October 31,					Three Months Ended January 31,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands, except per share data)						

Statement of Operations Data:							
Revenue	\$413,215	\$508,087	\$482,085	\$858,750	\$1,603,229	\$351,989	\$162,156
Cost of goods sold	166,472	256,014	299,769	477,393	904,549	191,837	139,687
Gross profit	246,743	252,073	182,316	381,357	698,680	160,152	22,469
Operating expenses:							
Research and development (exclusive of \$0, \$0, \$0, \$0, \$17,825, \$0 and \$3,951 deferred stock compensation costs)	23,773	71,186	101,006	125,434	235,831	42,504	64,756
Selling and marketing (exclusive of \$0, \$0, \$0, \$0, \$8,336, \$0 and \$956 deferred stock compensation costs)	22,627	47,343	61,603	90,922	146,949	29,636	37,600
General and administrative (exclusive of \$40, \$40, \$40, \$40, \$15,206, \$90 and \$227 deferred stock compensation costs)	11,436	18,428	22,696	33,960	57,865	11,145	13,655
Settlement of accrued contract obligation	—	—	—	(8,538)	—	—	—
Deferred stock compensation costs	40	40	40	40	41,367	—	5,134
Amortization of goodwill	—	2,341	3,197	3,197	177,786	898	—
Amortization of intangible assets	—	229	438	438	4,413	109	1,813
In-process research and development	—	9,503	—	—	45,900	—	—
Restructuring costs	—	—	—	—	15,439	—	6,828

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	Year Ended October 31,					Three Months Ended January 31,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands, except per share data)						
Goodwill impairment	—	—	—	—	1,719,426	—	—
Pirelli litigation	7,500	30,579	—	—	—	—	—
Merger related costs	—	2,548	13,021	—	—	—	—
Provision for doubtful accounts	489	806	250	28,010	(6,579)	—	—
Total operating expenses	65,865	183,003	202,251	273,463	2,438,397	84,292	129,786
Income (loss) from operations	180,878	69,070	(19,935)	107,894	(1,739,717)	75,860	(107,317)
Other income (expense), net	7,178	12,830	13,944	12,680	32,988	4,209	361
Income (loss) before income taxes	188,056	81,900	(5,991)	120,574	(1,706,729)	80,069	(106,956)
Provision (benefit) for income taxes	72,488	36,200	(2,067)	39,187	87,333	26,823	(36,365)
Net income (loss)	\$ 115,568	\$ 45,700	\$ (3,924)	\$ 81,387	\$ (1,794,062)	\$ 53,246	\$ (70,591)
Basic net income (loss) per common share	\$ 0.76	\$ 0.19	\$ (0.01)	\$ 0.29	\$ (5.75)	\$ 0.19	\$ (0.22)
Diluted net income (loss) per common and dilutive potential common share	\$ 0.55	\$ 0.18	\$ (0.01)	\$ 0.27	\$ (5.75)	\$ 0.18	\$ (0.22)
Weighted average basic common shares outstanding	151,928	235,980	267,042	281,621	311,815	287,001	327,620
Weighted average basic common and dilutive potential common shares outstanding	209,686	255,788	267,042	299,662	311,815	300,956	327,620

Significant events affecting CIENA's operating trends. The comparability of CIENA's operating results is affected by a number of significant and nonrecurring items recognized in some periods as well as acquisitions. In fiscal 1997, CIENA incurred special charges of \$7.5 million related to the Pirelli litigation. In fiscal 1998, CIENA incurred special charges of \$30.6 million related to the Pirelli litigation, \$2.6 million of merger related costs associated with an unsuccessful merger and \$9.5 million in-process research and development charge associated with the acquisition of Terabit Technologies. In fiscal 1999, CIENA incurred \$13.0 million of merger related costs associated with Omnia and Lightera. In fiscal 2000, CIENA incurred \$28.0 million of additional provision for doubtful accounts associated with the write-off of customer receivables. In fiscal 2001, CIENA recorded a goodwill impairment of \$1,719.4 million related to the Cyras acquisition, an in-process research and development charge of \$45.9 million in connection with the Cyras acquisition, and restructuring costs to close facilities and terminate employees of \$15.4 million. CIENA consummated the acquisition of Cyras Systems, Inc. on March 29, 2001. During the three months ended January 31, 2002, CIENA recorded \$6.8 million of restructuring costs associated with exiting facilities and terminating employees. During the three months ended April 30, 2002, CIENA expects to record a restructuring charge of between \$125 and \$135 million associated with a workforce reduction, lease terminations, non-cancelable lease costs and the write-down of certain property, equipment and leasehold improvements. In addition, CIENA also expects to record for this period a charge of approximately \$200 to \$225 million, primarily related to excess inventory associated with its long-haul transport products and purchase commitments with suppliers. In April 2002, CIENA commenced a tender offer for employee stock options with exercise prices in excess of \$12.00 per share. CIENA intends to grant replacement options to tendering option holders no earlier than six months and one day following the termination of the tender offer. As a result, CIENA expects that there will be no adverse accounting consequences from the tender offer.

Summary Selected Consolidated Historical Financial Data of ONI Systems

The information in the following summary selected consolidated financial data is derived from ONI Systems' audited consolidated financial statements. You should read this information in conjunction with the financial statements and notes to the consolidated financial statements which are incorporated by reference into this joint proxy statement/ prospectus. See "Where You Can Find More Information" which begins on page . ONI Systems' financial statements as of December 31, 2000 and 2001 and for each of the three years ended December 31, 2001 were audited by KPMG LLP, independent accountants. The historical results are not necessarily indicative of results to be expected for any future period.

	As of December 31,				
	1998	1999	2000	2001	
(in thousands)					
Balance Sheet Data:					
Cash and cash equivalents	\$19,092	\$ 80,023	\$ 852,360	\$ 338,511	
Working capital	19,627	81,758	917,608	415,336	
Total assets	21,312	100,942	1,015,468	916,355	
Long term obligations, excluding current portion	79	367	300,187	300,048	
Total stockholders' equity	\$20,565	\$ 91,728	\$ 677,644	\$557,780	
	Period from October 20, 1997 (inception) to December 31, 1997	Years Ended December 31,			
		1998	1999	2000	2001
(In thousands, except per share data)					
Consolidated Statements of Operations Data:					
Revenue	\$ —	\$ 1,733	\$ 3,034	\$ 59,662	\$ 195,680
Costs of goods sold, excluding amortization of deferred stock compensation:					
Product sales	—	1,208	1,032	39,980	121,281
Inventory related charges	—	—	—	—	45,335
Gross profit	—	525	2,002	19,682	29,064
Operating expenses:					
Research and development, excluding amortization of deferred stock compensation	39	4,009	24,858	53,654	78,355
Sales and marketing, excluding amortization of deferred stock compensation	21	649	4,557	25,304	51,322
General and administrative, excluding amortization of deferred stock compensation	49	1,591	3,455	16,385	37,388
Restructuring and impairment charges	—	—	—	—	17,350
Amortization of deferred stock compensation	89	3,310	11,422	66,413	27,009
Amortization of goodwill and intangibles	—	—	1,842	3,594	9,067
Common stock warrant expense	—	—	2,891	4,545	—
In-process research and development	—	—	170	—	8,240
Total operating expenses	198	9,559	49,195	169,895	228,731
Operating loss	(198)	(9,034)	(47,193)	(150,213)	(199,667)
Interest and other income (expense), net	(1)	183	623	13,333	11,813
Loss before income taxes	(199)	(8,851)	(46,570)	(136,880)	(187,854)
Income taxes	—	1	2	7	412
Net loss	(199)	(8,852)	(46,572)	(136,887)	(188,266)
Beneficial conversion of preferred stock	—	—	—	(4,242)	—

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	Period from October 20, 1997 (inception) to December 31, 1997	Years Ended December 31,			
		1998	1999	2000	2001
(In thousands, except per share data)					
Net loss attributable to common stockholders	\$ (199)	\$ (8,852)	\$ (46,572)	\$ (141,129)	\$ (188,266)
Basic and diluted net loss per share	\$(0.77)	\$ (0.74)	\$ (2.58)	\$ (1.22)	\$ (1.40)
Weighted-average shares outstanding used in computing basic and diluted net loss per share	257	11,919	18,043	115,587	134,756

Significant events affecting ONI Systems' operating trends. The comparability of ONI Systems' operating results is affected by a number of significant and non-recurring items recognized in some periods. In fiscal 2001, ONI Systems recorded an in-process research and development charge of \$8.2 million related to acquisition of a product line from Finisar Corporation, restructuring charges of \$17.4 million related to the exiting of certain facilities and employee terminations and inventory related charges of \$45.3 million.

SUMMARY SELECTED UNAUDITED PRO FORMA COMBINED**FINANCIAL DATA**

The following selected unaudited pro forma combined financial data was prepared using the purchase method of accounting. Due to different fiscal period ends for CIENA and ONI Systems, the unaudited pro forma combined statement of earnings data combined the historical consolidated statements of earnings data for CIENA for the year ended October 31, 2001, with ONI Systems' historical consolidated statements of income data for the year ended December 31, 2001, giving effect to the merger as if it had occurred on November 1, 2000. The unaudited pro forma combined balance sheet data combines CIENA's historical consolidated balance sheet data as of January 31, 2002 with ONI Systems' historical consolidated balance sheet data as of December 31, 2001, giving effect to the merger as if it had occurred as of January 31, 2002. Due to the differences in year ends, the ONI Systems fourth quarter 2001 operating results are included in both the year ended October 31, 2001 and the three months ended January 31, 2002 pro forma operating results. The ONI Systems revenue and net loss for the fourth quarter of 2001 are included in the unaudited pro forma combined statement of operations for the quarter ended January 31, 2002 on page . On March 29, 2001, CIENA acquired Cyras Systems, Inc. in a purchase business combination. Due to the significance of that acquisition, the CIENA pro forma operating results include adjustments to reflect the acquisition of Cyras Systems as of November 1, 2000.

The selected unaudited pro forma combined financial data is based on estimates and assumptions which are preliminary. This data is presented for informational purposes only and is not intended to represent or be indicative of the consolidated results of operations or financial condition of CIENA that would have been reported had the merger been completed as of the dates presented, and should not be taken as representative of future consolidated results of operations of CIENA.

This selected unaudited pro forma combined financial data should be read in conjunction with the summary selected historical consolidated financial data and the unaudited pro forma combined financial data and accompanying notes contained elsewhere in this joint proxy statement/prospectus and the separate historical consolidated financial statements and accompanying notes of CIENA and ONI Systems incorporated by reference into this joint proxy statement/prospectus. See the section entitled "Where You Can Find More Information" beginning on page of this joint proxy statement/prospectus.

		As of January 31, 2002
		(in thousands)
PRO FORMA COMBINED BALANCE SHEET DATA:		
Cash and cash equivalents		\$ 801,799
Working capital		2,059,126
Total assets		4,493,746
Long-term obligations, excluding current position		995,788
Stockholders' equity		2,984,758
	Year Ended Oct. 31, 2001	Three Months Ended Jan. 31, 2002
	(in thousands, except per share amounts)	
PRO FORMA COMBINED STATEMENT OF OPERATIONS DATA:		
Revenue	\$1,798,909	\$204,319
Cost of goods sold (exclusive of \$6,941 and \$1,244 deferred stock compensation costs)	1,071,165	174,665
Gross profit	727,744	29,654

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	Year Ended Oct. 31, 2001	Three Months Ended Jan. 31, 2002
	(in thousands, except per share amounts)	
Operating expenses		
Research and development (exclusive of \$39,952 and \$6,418 deferred stock compensation costs)	363,240	84,586
Sales and marketing (exclusive of \$23,755 and \$3,279 deferred stock compensation costs)	203,798	51,220
General and administrative (exclusive of \$22,884 and \$1,090 deferred stock compensation costs)	91,872	20,612
Deferred stock compensation costs	93,532	12,031
Amortization of goodwill	300,301	—
Amortization of intangible assets	15,477	3,467
In-process research and development	8,240	—
Restructuring costs	32,789	8,086
Goodwill impairment	1,719,426	—
Provision for doubtful accounts	4,042	—
Total operating expenses	2,832,717	180,002
Loss from operations	(2,104,973)	(150,348)
Other income (expense), net	35,149	730
Loss before income taxes	(2,069,824)	(149,618)
Provision (benefit) for income taxes	87,797	(36,110)
Net loss	\$(2,157,621)	\$(113,508)
Basic net loss per common share	\$ (5.14)	\$ (0.27)
Diluted net loss per common and dilutive potential common share	\$ (5.14)	\$ (0.27)
Weighted average basic common shares outstanding	419,604	426,331
Weighted average basic common and dilutive potential common shares outstanding	419,604	426,331

COMPARATIVE PER SHARE DATA

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 ONI Systems 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 ONI Systems. 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 the ONI Systems historical financial statements incorporated by reference or included elsewhere in this joint proxy statement/prospectus.

	Year Ended October 31, 2001	Three Months Ended January 31, 2002
CIENA HISTORICAL PER SHARE DATA:		
Basic net loss per common share	\$(5.75)	\$(0.22)
Diluted net loss per common and dilutive potential common share	\$(5.75)	\$(0.22)
Book value per share at period end(1)		\$ 6.29
	Year Ended December 31, 2001	
ONI SYSTEMS HISTORICAL PER SHARE DATA:		
Basic net loss per common share	\$(1.40)	
Diluted net loss per common and dilutive potential common share	\$(1.40)	
Book value per share at period end(2)	\$ 3.97	
	Year Ended October 31, 2001	Three Months Ended January 31, 2002
UNAUDITED PRO FORMA COMBINED CIENA (3):		
Basic net loss per common share	\$(5.14)	\$(0.27)
Diluted net loss per common and dilutive potential common share	\$(5.14)	\$(0.27)
Book value per share at period end(4)		\$ 6.97
	Year Ended October 31, 2001	Three Months Ended January 31, 2002
EQUIVALENT PRO FORMA COMBINED ONI SYSTEMS(5):		
Basic net loss per common share	\$(3.65)	\$(0.19)
Diluted net loss per common and dilutive potential common share	\$(3.65)	\$(0.19)
Book value per share at period end		\$ 4.95

1. CIENA's book value per share is computed by dividing stockholders' equity by the number of shares of common stock outstanding at January 31, 2002.
2. ONI Systems' book value per share is computed by dividing stockholders' equity by the number of shares of common stock outstanding at December 31, 2001.
3. Pro forma combined per share CIENA information combines pro forma financial information of CIENA for the year ended October 31, 2001 (which includes certain pro forma adjustments related to the March 29, 2001 acquisition of Cyras System, Inc.) with the financial information of ONI Systems for the year ended December 31, 2001 and combines financial information of CIENA for the three months ended January 31, 2002 with the financial information of ONI Systems for the three months ended December 31, 2001. This information also assumes the merger occurred as of November 1, 2000 and was accounted for using the purchase method. The ONI Systems fourth quarter 2001 operating results are included in both the pro forma combined data for the year ended October 31, 2001 and the three months ended January 31, 2002.
4. Pro forma combined book value per share is computed by dividing pro forma stockholders' equity at January 31, 2002 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, 2002.
5. The equivalent pro forma combined amounts are calculated by multiplying the pro forma combined per share amounts by the exchange ratio of 0.7104 shares of CIENA common stock for each share of ONI Systems common stock.

COMPARATIVE PER SHARE MARKET PRICE DATA

CIENA common stock trades on the Nasdaq Stock Market under the symbol "CIEN." ONI Systems common stock trades on the Nasdaq Stock Market under the symbol "ONIS."

The following table shows the high and low sales prices per share of CIENA common stock and ONI Systems common stock, each as reported on the Nasdaq National Market on (i) February 15, 2002, the last full trading day preceding public announcement that CIENA and ONI Systems had entered into the merger agreement and (ii) May 10, 2002, the last full trading day for which high and low sales prices were available as of the date of this joint proxy statement/prospectus.

The table also includes the equivalent high and low sales prices per share of ONI Systems common stock on those dates. These equivalent high and low sales prices per share reflect the fluctuating value of the CIENA common stock that ONI Systems stockholders would receive in exchange for each share of ONI Systems common stock if the merger was completed on either of these dates, applying the exchange ratio of 0.7104 shares of CIENA common stock for each share of ONI Systems common stock.

	CIENA Common Stock		ONI Systems Common Stock		Equivalent Price Per Share	
	High	Low	High	Low	High	Low
February 15, 2002	\$9.20	\$8.54	\$5.54	\$5.11	\$6.54	\$6.07
May 10, 2002	\$7.16	\$6.43	\$5.00	\$4.51	\$5.09	\$4.57

The above table shows only historical comparisons. These comparisons may not provide meaningful information to CIENA stockholders in determining whether to approve the issuance of shares of CIENA common stock in connection with the merger and to ONI Systems stockholders in determining whether to approve and adopt the merger agreement and approve the merger. CIENA and ONI Systems stockholders are urged to obtain current market quotations for CIENA and ONI Systems common stock and to review carefully the other information contained in this joint proxy statement/prospectus or incorporated by reference into this joint proxy statement/prospectus in considering whether to approve and adopt the merger agreement and approve the merger. See the section entitled "Where You Can Find More Information" beginning on page of this joint proxy statement/prospectus.

RISK FACTORS

In addition to the risks described in CIENA's most recently filed Form 10-Q under Item 2 and ONI Systems' most recently filed 10-K under Item 7, you should carefully consider the following risk factors relating to the merger before deciding how to vote your shares. You should also consider the other information contained in, or incorporated by reference into, this joint proxy statement/ prospectus. See "Where You Can Find More Information" on page .

The value of the CIENA common stock that ONI Systems stockholders 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 CIENA common stock that ONI Systems stockholders will receive in the merger depends on the market price of CIENA common stock. The market price of CIENA common stock may decline, causing the value of the consideration received by ONI Systems stockholders in the merger to decline. The market price of CIENA common stock is extremely volatile and has fluctuated over a wide range. From April 20, 2001 to April 26, 2002, CIENA common stock traded as high as \$70.89 per share and as low as \$7.13 per share. From February 15, 2002, the last trading day prior to the date on which the merger was announced, through April 26, 2002, the price of CIENA common stock has declined approximately 14%. The market price of CIENA common stock may continue to fluctuate significantly in response to various factors, including:

- quarterly variations in operating results principally due to customer purchasing decisions;
- changes in estimates by securities analysts;
- announced reductions in capital spending by customers; and
- general economic conditions.

Neither company can terminate the merger due to fluctuations in CIENA's stock price.

Neither party has the right to terminate the merger due to increases or decreases in CIENA's stock price, even if those fluctuations would materially affect the value of the consideration ONI Systems stockholders will receive in the merger. CIENA has agreed to issue approximately 100,500,000 shares of CIENA common stock for all of ONI Systems outstanding common stock. This represented a value of approximately \$877,365,000 on February 15, 2002, the last trading day prior to the date on which the merger was announced. CIENA has also agreed to assume the obligation to issue approximately 16,500,000 shares of CIENA common stock on the exercise of outstanding stock options, rights and warrants.

If the price for CIENA common stock increases, CIENA would not be able to terminate the merger, even though it would be paying significantly more for ONI Systems. If the price for CIENA common stock decreases, ONI Systems would not be able to terminate the merger, even though its stockholders would receive less value for their shares of ONI Systems. Since February 15, 2002, the price per share of CIENA common stock has decreased from \$8.73 to \$7.50, thereby decreasing the value of the consideration to be paid for all of ONI Systems outstanding common stock to approximately \$753,750,000.

CIENA will be less successful if it is unable to effectively integrate ONI Systems into its operations.

The success of the combined company will depend in part on the integration of the technology, operations and personnel of the two companies in a timely and efficient manner. This involves many risks, including:

- assimilating ONI Systems' technology and product offerings which may be more difficult than anticipated because the technology is very complex;
- coordinating research and development efforts which may involve unexpected problems;
- that a planned relocation of CIENA personnel from CIENA's Fremont and possibly its Cupertino facilities to ONI Systems' facilities in San Jose may result in higher cost, disruption and possible loss of employees;

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- that management attention may be diverted from business matters to integration issues;
- identifying and retaining key personnel which may be difficult in the combined company;
- integrating accounting, engineering, information technology, and administrative systems which may be unexpectedly difficult or costly;
- that significant cash expenditures will be required to retain personnel, eliminate unnecessary resources and integrate the business may reduce our cash reserves;
- maintaining uniform standards, controls, procedures and policies which may be harder than we anticipate and interfere with efficient administration of the combined company; and
- changes in the businesses as a result of the merger may impair relationships with employees, customers or vendors.

Failure to overcome these risks or any other problems encountered in connection with the merger or other similar transactions could harm CIENA's business, results of operations and financial condition.

Directors and officers of ONI Systems may have conflicts of interest that influenced their decisions to approve the merger.

You should be aware of potential conflicts of interest of, and the benefits available to, directors and executive officers of ONI Systems when considering the ONI Systems board of directors' recommendation of the merger agreement. The directors and executive officers of ONI Systems have interests in the merger that are in addition to, or different from, their interests as ONI Systems stockholders. These interests are described under "The Merger — Interests of Executive Officers and Directors in the Merger" on page .

These interests include:

- *New Employment and Consulting Agreements.* Hugh Martin has entered into a consulting agreement with CIENA. William Cumpston and Rohit Sharma have both entered into employment agreements with CIENA. Each of these agreements become effective upon the completion of the merger. Under the agreements, these individuals are entitled to receive compensation and benefits which other ONI Systems' employees will not be entitled to receive.
- *Stock Option Grants and Accelerations.* ONI Systems stock options held by members of the ONI Systems board of directors will accelerate in connection with the merger and become 100% vested and exercisable in full. The ONI Systems options held by Robert J. Jandro and Michael A. Dillon, both of whom are executive officers of ONI Systems, will accelerate in connection with the merger so that 25% of the unvested shares subject to these options will become vested. In addition, several other employees of ONI Systems have stock options with acceleration of vesting in connection with the merger.
- *Loan Agreements with Executive Officers.* ONI Systems made two loans to Michael Dillon with a balance as of March 1, 2002 of \$102,407 and one loan to Hugh Martin, with a balance as of March 1, 2002 of \$1,726,576. In addition, the promissory note from Robert Jandro, with an outstanding balance of \$2,451,164 as of March 1, 2002 was amended to allow for partial prepayment in proportion to the amount of stock sold. All of the promissory notes issued in exchange for the loans are secured by shares of ONI Systems common stock.
- *Directors' and Officers' Insurance; Indemnification of ONI Systems' Directors and Officers.* Under the merger agreement, CIENA will purchase insurance and provide indemnification for present and former directors and officers of ONI Systems with respect to acts and omissions in their capacities as directors and officers of ONI Systems, for six years following closing, including acts and omissions relating to the merger.

The \$300 million in additional debt that CIENA will assume in connection with the merger may limit CIENA's financing options in the future and could weaken our business.

ONI Systems has \$300 million principal amount of 5% convertible subordinated notes due October 15, 2005. CIENA will assume these ONI Systems notes at the effective date of the merger. In addition, CIENA has outstanding \$690 million principal amount of 3.75% convertible notes due February 1, 2008. The assumption of ONI Systems 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 \$300 million principal amount of indebtedness in fiscal 2005;
- 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 occurs, CIENA would have to issue 2,325,757 shares of its common stock if holders of the entire \$300 million convertible notes elected to convert. The 5% notes would be convertible at a conversion price of \$128.99 per share of CIENA common stock. The 3.75% notes are currently convertible at a conversion price of \$104.38 per share.

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 the merger is completed, CIENA will incur a charge for in-process research and development, which we currently estimate will be \$3.0 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.

The economic downturn could continue to adversely affect the revenues, gross margins and expenses of the combined company.

The revenues and gross margins of the combined company will depend significantly on the overall demand for fiber-optic telecommunications equipment. Continued weakening demand for fiber-optic telecommunications equipment of CIENA and ONI Systems caused by the ongoing economic downturn may result in decreased revenues for the combined company. The downturn has contributed to revenue declines during recent quarters, as well as a lowered revenue outlook for both companies. It has also caused both companies to take restructuring actions and contributed to writedowns to reflect the impairment of certain assets. There could be more of these adverse effects. If the combined company cannot realign its costs relative to its revenues in response to economic conditions and competitive pressures, its margins could be adversely affected.

The combined company may suffer if it cannot satisfactorily resolve litigation by Nortel against ONI Systems.

In March 2000, Nortel Networks filed suit against ONI Systems in the United States District Court for the Northern District of California. The suit, as currently formulated, alleges that ONI Systems' products infringe a patent held by Nortel Networks, and sets forth allegations of misappropriation of trade secrets, unlawful business practices and common law unfair competition. Nortel Networks is seeking preliminary and permanent injunctions and damages against ONI in connection with its claims. If Nortel Networks is able to obtain an injunction preventing the sale of ONI Systems' products, the combined company would lose revenue and incur losses over an extended period of time. The combined company may incur substantial legal and other expenses as well as diversion of management time and attention in connection with this litigation. The expenses and diversion of resources associated with this litigation could seriously harm the business and financial condition of the combined company.

Because ONI Systems is prohibited from soliciting other offers, ONI Systems stockholders may not be presented with alternative offers they could consider superior.

The merger agreement contains detailed provisions that prohibit ONI Systems and its officers and directors from taking any action to solicit or engage in discussions or negotiations with any person or group with respect to any acquisition proposal as defined in the merger agreement. The merger agreement does not, however, prohibit ONI Systems or its board of directors from considering, or in the event of a tender or exchange offer made directly to stockholders, recommending, an unsolicited bona fide written acquisition proposal from a third party, if specified conditions are met.

Pending lawsuits against ONI Systems seek to prevent the merger.

On February 20, 2002, a complaint was filed on behalf of a purported class of ONI Systems security holders in the Superior Court of the State of California, County of San Mateo against ONI Systems, Matthew Bross, Kevin Compton, Jonathan Feiber, Gregory Maffei and Hugh Martin, seeking an injunction to prevent the consummation of the proposed merger with CIENA. The complaint alleges that the director defendants, in connection with the approval of the proposed merger with CIENA, breached their fiduciary duties, including duties of loyalty and good faith, to ONI stockholders by, among other things, allegedly failing to obtain the highest value for ONI stockholders, engaging in self-dealing and unjustly enriching themselves and other insiders or affiliates of ONI. The complaint, which is encaptioned K.W. Sams, On Behalf of Himself and All Others Similarly Situated v. ONI Systems Corporation, et al., Case No. CIV-420819, seeks declaratory, injunctive and other relief permitted by equity. On March 19, 2002, a substantially similar complaint was filed on behalf of the same purported class of ONI Systems security holders in Superior Court of the State of California, County of Santa Clara, against the same defendants seeking similar relief. The complaint is encaptioned Steven Myeary, On Behalf of Himself and All Others Similarly Situated v. ONI Systems Corporation, et al., Case No. CV-806192. ONI Systems believes that these lawsuits are without merit and intends to defend them vigorously.

FORWARD-LOOKING STATEMENTS

Some of the statements contained, or incorporated by reference, in this joint proxy statement/prospectus 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” beginning on page and throughout this joint proxy statement/prospectus.

THE SPECIAL MEETING OF CIENA STOCKHOLDERS

General

CIENA is furnishing this document to holders of CIENA common stock in connection with the solicitation of proxies by the CIENA board of directors for use at the special meeting of CIENA stockholders to be held on _____, 2002 and at any adjournment or postponement thereof.

This document was first mailed to stockholders of CIENA on or about _____, 2002.

Date, Time and Place

The special meeting will be held on _____, 2002 at 9:00 a.m., local time, at the BWI Marriott Hotel, 1743 W. Nursery Road, Linthicum, Maryland 21090. CIENA's telephone number is (410)865-8500.

Purpose of the Special Meeting

At the special meeting, and any adjournment or postponement thereof the holders of CIENA common stock will be asked to consider and vote on proposals to:

- Approve and adopt the merger agreement by and among CIENA and ONI Systems and the related issuance of shares of CIENA common stock to ONI Systems' stockholders in the merger;
- Grant the CIENA 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
- Transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

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

Record Date for the Special Meeting

The CIENA board of directors has fixed the close of business on May 9, 2002 as the record date for determination of CIENA stockholders entitled to notice of and to vote at the special meeting.

Voting of Proxies at the Special Meeting and Revocation of Proxies

CIENA requests that all holders of CIENA common stock on the record date complete, date and sign the accompanying proxy card and promptly return it in the accompanying envelope or otherwise mail it to CIENA. All properly executed proxies that CIENA 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 proxies. If no direction is indicated on such proxies, such proxies will be voted in favor of approval and adoption of the merger agreement and approval of the merger and the share issuance, and approval of the grant of discretionary authority to the CIENA board of directors to adjourn the special meeting to solicit additional votes for approval and adoption of the merger agreement and for approval of the merger. The CIENA board of directors does not currently intend to bring any other business before the special meeting and, to the knowledge of the CIENA board of directors, no other matters are to be brought before the special meeting. If other business properly comes before the special meeting, the proxies will vote in accordance with their own judgment.

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

- by delivering to the Secretary of CIENA a signed notice of revocation;
- by delivering to the Secretary of CIENA a later-dated, signed proxy; 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 CIENA common stock outstanding as of the record date must vote to adopt and approve the merger agreement and approve the issuance of shares in the merger. As of the close of business on the record date for the special meeting, 329,689,850 shares of CIENA common stock were outstanding and there were approximately 2,155 stockholders of record. Each share of CIENA common stock outstanding on the record date is entitled to one vote at the special meeting on each matter to be voted on.

As of the close of business on the record date for the special meeting, CIENA's directors and executive officers (and their respective affiliates) held approximately 10,501,907 shares of CIENA common stock, or approximately 3.16% of the shares of CIENA common stock entitled to vote at the special meeting, excluding options and warrants to purchase CIENA common stock which were unexercised as of the record date.

Quorum and Abstentions

A majority of all shares of CIENA common stock outstanding as of the record date, represented in person or by proxy, constitutes a quorum for the transaction of business at the special meeting. Broker non-votes and shares held by persons abstaining will be counted in determining whether a quorum is present at the CIENA special meeting. CIENA has appointed its Senior Vice President, 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 CIENA stockholders at the special meeting. If a quorum is not present, or fewer shares of CIENA common 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, if stockholders approve the grant of discretionary authority to the CIENA board of directors to adjourn the meeting, for the purpose of allowing additional time for obtaining additional proxies or votes, and, if stockholders approve the grant of discretionary authority to the CIENA board of directors to adjourn the meeting, 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 special meeting.

If you submit a proxy that indicates an abstention from voting, 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 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 and share issuance.

If your shares are held by your broker, your broker will vote your shares for you only if you provide instructions on how to vote your shares. You should follow the directions provided by your broker regarding how to instruct your broker to vote your shares. Your broker cannot vote your shares of common stock at the special meeting without specific instructions from you. Because the affirmative vote of a majority of the outstanding shares of CIENA common stock is required to adopt and approve the merger agreement and to approve the merger and share issuance, if you do not instruct your broker how to vote, it will have the effect of a vote against adoption and approval of the merger agreement and approval of the merger and share issuance.

Solicitation of Proxies and Expenses

CIENA 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 ONI Systems. 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 CIENA may solicit proxies from stockholders by telephone, facsimile, e-mail or in person. No additional compensation will be paid to these individuals for any such services. 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. CIENA intends to use Georgeson Shareholder Communications, Inc. as a proxy solicitor to solicit proxies from stockholders, either personally, or by telephone, telegram, facsimile or electronic or United States mail, and will pay Georgeson a fee of approximately \$13,500 for these services plus reimbursement of expenses. Additionally, if a telephone campaign to investors becomes necessary and is authorized by CIENA, there could be a charge of \$5.00 per completed telephone contact.

Board of Directors Recommendation

The CIENA board of directors has 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 CIENA and its stockholders. Accordingly, the CIENA board of directors has approved the merger agreement and recommends that stockholders vote "**FOR**" adoption and approval of the merger agreement, approval of the merger and approval of the issuance of shares in the merger, as well as approval of the grant of discretionary authority to the CIENA board of directors to adjourn the meeting.

The matters to be considered at the special meeting are of great importance to the stockholders of CIENA. Accordingly, CIENA stockholders are urged to read and carefully consider the information presented in this document and to complete, date, sign and promptly return the enclosed proxy in the enclosed, postage-paid envelope.

THE SPECIAL MEETING OF ONI SYSTEMS STOCKHOLDERS

General

ONI Systems is furnishing this document to holders of ONI Systems common stock in connection with the solicitation of proxies by the ONI Systems board of directors for use at the special meeting of ONI Systems stockholders to be held on _____, 2002, and at any adjournment or postponement thereof. This document also is being furnished to ONI Systems 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 ONI Systems on or about _____, 2002.

Date, Time and Place

The special meeting will be held on _____, 2002 at 9:00 a.m., local time, at _____ . ONI Systems' telephone number is (408) 965-2600.

Purpose of the Special Meeting

The purpose of the ONI Systems' special meeting is to consider and vote upon proposals to:

- Approve and adopt the Agreement and Plan of Merger dated as of February 17, 2002 between CIENA and ONI Systems. The merger agreement provides for the merger of ONI Systems with and into CIENA, with CIENA surviving the merger. In the merger, ONI Systems stockholders will receive 0.7104 shares of CIENA common stock, par value \$0.01 per share, for each share of ONI Systems common stock, par value \$0.0001 per share;
- Grant the ONI Systems 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
- Transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

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

Record Date for the Special Meeting

The ONI Systems board of directors has fixed the close of business on May 9, 2002 as the record date for determination of ONI Systems stockholders entitled to notice of and to vote at the special meeting.

Voting of Proxies at the Special Meeting and Revocation of Proxies

ONI Systems requests that all holders of ONI Systems common stock on the record date complete, date and sign the accompanying proxy card and promptly return it in the accompanying envelope or otherwise mail it to ONI Systems. All properly executed proxies that ONI Systems 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 proxies. If no direction is indicated on such proxies, such proxies will be voted in favor of approval and adoption of the merger agreement and approval of the merger, and approval of the grant of discretionary authority to the ONI Systems board of directors to adjourn the special meeting to solicit additional votes for approval and adoption of the merger agreement and approval of the merger.

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An ONI Systems stockholder may revoke a proxy at any time prior to its use:

- by delivering to the Secretary of ONI Systems a signed notice of revocation;
- by delivering to the Secretary of ONI Systems a later-dated, signed proxy; 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. If you have instructed a broker to vote your shares, you must follow the directions received from your broker to change those instructions.

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 ONI Systems common stock outstanding as of the record date must vote to adopt and approve the merger agreement and approve the merger. As of the close of business on the record date for the special meeting, approximately _____ shares of ONI Systems common stock were outstanding and there were approximately _____ stockholders of record. Each share of ONI Systems common stock outstanding on the record date is entitled to one vote at the special meeting on each matter to be voted on.

As of the close of business on the record date for the special meeting, ONI Systems directors and executive officers (and their respective affiliates) held approximately _____ shares of ONI Systems common stock or approximately _____ % of the shares of ONI Systems common stock entitled to vote at the special meeting, excluding options and warrants to purchase ONI Systems common stock which were unexercised as of the record date. In addition, directors, executive officers and stockholders of ONI Systems beneficially owning an aggregate of approximately _____ shares of ONI Systems common stock (excluding any shares issuable upon the exercise of options and warrants) as of the close of business on the record date for the special meeting, or approximately _____ % of the shares of ONI Systems common stock entitled to vote at the special meeting, have entered into stockholder agreements, pursuant to which they have agreed to vote their ONI Systems 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 ONI Systems 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 ONI Systems owned any shares of CIENA common stock. See the section entitled “The Merger — Interests of Executive Officers and Directors in the Merger.”

Quorum and Abstentions

A majority of all shares of ONI Systems common stock outstanding as of the record date, represented in person or by proxy, constitutes a quorum for the transaction of business at the special meeting. Broker non-votes and shares held by persons abstaining will be counted in determining whether a quorum is present at the ONI Systems special meeting. ONI Systems has appointed its transfer agent, Mellon Investor Services LLC, 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 ONI Systems stockholders at the special meeting. If a quorum is not present, or fewer shares of ONI Systems common 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, if stockholders approve the grant of discretionary authority to the ONI Systems board of directors to adjourn the meeting, for the purpose of allowing additional time for obtaining additional proxies or votes, and, if stockholders approve the grant of discretionary authority to the ONI Systems board of directors to adjourn the meeting, at any subsequent reconvening of the special meeting, all proxies will be voted in the same manner as the proxies

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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 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.

If your shares are held by your broker, your broker will vote your shares for you only if you provide instructions on how to vote your shares. You should follow the directions provided by your broker regarding how to instruct your broker to vote your shares. Your broker cannot vote your shares of ONI Systems common stock at the special meeting without specific instructions from you. Because the affirmative vote of a majority of the outstanding shares of ONI Systems common stock is required to approve and adopt the merger agreement and to approve the merger, if you do not instruct your broker how to vote, it will have the effect of a vote against approval and adoption of the merger agreement and approval of the merger.

Solicitation of Proxies and Expenses

ONI Systems 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 ONI Systems. ONI Systems 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 ONI Systems may solicit proxies from stockholders by telephone, facsimile, e-mail or in person. No additional compensation will be paid to these individuals for any such services. Some of these individuals may have interests in the merger that are different from, or in addition to, the interests of ONI Systems stockholders generally. See "The Merger and Related Transactions — Interests of Executive 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. ONI Systems intends to use Innisfree M&A Incorporated as a proxy solicitor to solicit proxies from stockholders, either personally, or by telephone, telegram, facsimile or electronic or United States mail, and will pay Innisfree a fee of approximately \$10,000 for these services plus reimbursement of expenses and a service fee of five percent of expenses. Additionally, if a telephone campaign to investors becomes necessary and is authorized by ONI Systems, there could be a charge of \$5.50 per completed telephone contact.

Board of Directors Recommendation

The ONI Systems 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 ONI Systems and its stockholders. Accordingly, the ONI Systems board of directors has unanimously approved the merger agreement and unanimously recommends that stockholders vote "**FOR**" adoption and approval of the merger agreement and approval of the merger, as well as approval of the grant of discretionary authority to the ONI Systems board of directors to adjourn the meeting. In considering such recommendation, ONI Systems stockholders should be aware that some ONI Systems directors and officers have interests in the merger that are different from, or in addition to, those of ONI Systems stockholders, and that ONI Systems has agreed to provide indemnification arrangements to directors and officers of ONI Systems. See "The Merger and Related Transactions — Interests of Executive Officers and Directors of ONI Systems in the Merger."

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The matters to be considered at the special meeting are of great importance to the stockholders of ONI Systems. Accordingly, ONI Systems stockholders are urged to read and carefully consider the information presented in this document and to complete, date, sign and promptly return the enclosed proxy in the enclosed, postage-paid envelope.

ONI Systems' stockholders should not send any stock certificates with their proxy cards. A transmittal form with instructions for the surrender of ONI Systems common stock certificates will be mailed to ONI Systems stockholders promptly following completion of the merger. For more information regarding the procedures for exchanging ONI Systems 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 and ONI Systems have each approved the merger agreement, which provides for the merger of ONI Systems with and into CIENA, with CIENA being the surviving corporation of the merger. Each share of ONI Systems common stock outstanding immediately prior to the merger will be converted into the right to receive 0.7104 shares of CIENA common stock. Fractional shares of CIENA common stock will not be issued in connection with the merger, and ONI Systems 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.”

Background of the Merger

As a regular part of their businesses, CIENA and ONI Systems from time to time have each independently considered opportunities to expand and strengthen their own technology, products, research and development capabilities and distribution channels, including opportunities through strategic acquisitions, business combinations, investments, licenses, development agreements and joint ventures.

In late September 2001, Robert Finch, CIENA’s former Senior Vice President Corporate Development, contacted and had a brief conversation with Andrew Page, Vice President of Business Development for ONI Systems, whom he had met at a prior industry conference. The purpose of this call was to determine whether ONI Systems had any interest in discussing potential synergies between the two companies.

In early October 2001, Mr. Page telephoned Mr. Finch and informed him that ONI Systems would be interested in a transaction only if it brought important strategic benefits to the combined company.

On November 12, 2001, Dr. Patrick Nettles, CIENA’s Executive Chairman, met with Hugh Martin, Chairman, President and Chief Executive Officer of ONI Systems, at CIENA’s offices in Linthicum, Maryland to discuss a potential business combination or strategic relationship between the two companies. As a result of that meeting, Dr. Nettles asked Steve Chaddick, CIENA’s Senior Vice President and Chief Strategy Officer, to meet further with Mr. Martin to discuss ONI Systems. Thereafter, on December 6, 2001, Mr. Chaddick met with Mr. Martin in Cupertino, California.

On December 17, 2001, Mr. Martin, Jonathan Feiber and Kevin Compton, all of whom are members of the ONI Systems board of directors, met to discuss overall business strategies and the potential combination of the two companies.

Commencing in early January 2002 and continuing through Goldman, Sachs & Co.’s formal engagement later in January, ONI Systems executives held many discussions with representatives of Goldman Sachs regarding strategic alternatives and opportunities for ONI Systems.

Commencing January 20, 2002, Lawton Fitt, a Managing Director of Goldman Sachs International, an affiliate of Goldman Sachs, who is also a director of CIENA, recused herself from deliberating and voting on any proposals presented to CIENA’s board of directors in respect of the merger agreement and merger.

On January 8, 2002, both Mr. Chaddick and Gary Smith, CIENA’s President and Chief Executive Officer, had separate, brief conversations with Mr. Martin at an industry conference in Scottsdale, Arizona regarding potential strategic opportunities, including the potential combination of the two companies.

On January 9, 2002, Stephen Alexander, Senior Vice President and Chief Technology Officer of CIENA, contacted Mr. Martin to inform him that CIENA was interested in pursuing a potential business combination between the two companies.

On January 11, 2002, Mr. Chaddick met with Mr. Martin and Rohit Sharma, ONI Systems’ founder and Chief Technology Officer, at ONI Systems’ offices in San Jose, California. The ONI Systems executives gave a presentation of ONI Systems’ current products, product strategies and development efforts and a tour of ONI Systems’ manufacturing facilities.

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On January 14, 2002, CIENA and ONI Systems entered into a general purpose nondisclosure agreement.

Also on January 14, 2002, Mr. Alexander and Jeffrey Livas, CIENA's Vice President Systems Technology, met with Messrs. Martin and Sharma, Paul Mitalas, ONI Systems' Vice President ONLINE Development, and Brian Pheiffer, ONI Systems' Senior Network Architect, at ONI Systems' offices in San Jose. The CIENA executives presented an overview of CIENA's various products and technologies. The ONI Systems executives presented an overview of ONI Systems' products and a tour of its manufacturing facilities.

On January 16, 2002, Mr. Martin and Mr. Smith had a telephone conversation to discuss due diligence issues and to set up further meetings to discuss a potential business combination of the two companies.

On January 18, 2002, a meeting took place in Saratoga, California between representatives of CIENA and ONI Systems. CIENA's team consisted of Messrs. Smith, Finch, Alexander and Joseph R. Chinnici, CIENA's Senior Vice President, Finance and Chief Financial Officer. ONI Systems was represented by Messrs. Martin, Sharma, Page and William Cumpston, ONI Systems' Executive Vice President and Chief Operating Officer. The ONI Systems executives provided a review of ONI Systems' products, current business status and future prospects, and the parties engaged in a discussion regarding the possibility of a business combination.

Also on January 18, 2002, members of the board of directors of ONI Systems held informal discussions during which Mr. Martin described the progress of the discussions between the companies regarding a potential business combination.

At several meetings in January and February 2002, ONI Systems' executives met with representatives of Goldman Sachs to discuss potential strategic combinations. ONI Systems' management and representatives of Goldman Sachs considered additional companies that could potentially be interested in pursuing a business combination or other strategic transaction with ONI Systems. They also considered these companies' business strategies, market valuations and financial abilities to pursue and consummate such a transaction. As a result of this analysis, representatives of Goldman Sachs contacted the companies that the board had determined would likely be interested in evaluating a potential business combination or other strategic transaction with ONI Systems (including CIENA and two other Nasdaq-listed telecommunications equipment companies, Company A and Company B).

On January 24, 2002, at its regularly scheduled meeting, the ONI Systems board of directors met with representatives of its outside legal counsel, Fenwick & West LLP, and discussed the potential combination with CIENA among other matters. During this discussion it was proposed that ONI Systems engage Goldman Sachs as its financial advisor. Mr. Page presented the material terms of the engagement of Goldman Sachs, which were approved by the board. Representatives of Goldman Sachs joined the meeting, and, with its advisors, the board conducted an extensive discussion of the potential transaction with CIENA and other parties potentially interested in pursuing a strategic transaction with ONI Systems, including Company A and Company B. Representatives of Goldman Sachs presented a detailed initial analysis of a potential combination with CIENA, as well as analyses regarding potential combinations with other companies, including Company A, Company B and Company C, a NYSE-listed telecommunications equipment company and major issues associated with business combinations. The Goldman Sachs representatives left the meeting and the board further discussed the possibility of a business combination at length. The board directed ONI Systems' management to obtain additional information on various subjects, including synergies, product roadmap and other matters.

On January 25, 2002, Messrs. Smith and Finch met with Messrs. Martin, Sharma and Page at a hotel in McLean, Virginia, to discuss potential terms of a business combination. The CIENA executives gave a presentation of CIENA's customers, business outlook and organization.

On January 26 and 27, 2002, Messrs. Smith and Martin had further telephone conversations about the potential terms of a business combination.

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Also on January 26, 2002, a representative of Goldman Sachs contacted a representative of Company A and Company B regarding a potential strategic relationship. Company B did not express interest in pursuing a strategic transaction.

On January 28, 2002, the ONI Systems board of directors held a meeting by teleconference to receive an update from management regarding the status and substance of the discussions with CIENA and other possible business combinations or strategic relationships. Mr. Martin led a detailed discussion regarding management's initial due diligence of CIENA including CIENA's financial outlook, product lines and key accounts. Mr. Martin then updated the board on the current negotiations regarding the valuation and the role of ONI Systems' management in the combined entity. Mr. Martin then described the status of discussions with other possible acquisition partners, including Company A. The board actively discussed the CIENA transaction and other possibilities at length, including the need for additional due diligence investigation. The board instructed management to conduct additional diligence on CIENA and authorized management and its advisors to continue discussions with CIENA, while also continuing to explore alternatives, including the possibility of a transaction with Company A.

On January 29, 2002, CIENA and ONI Systems entered into a mutual non-disclosure agreement regarding discussions in connection with a potential combination, which superseded a prior general non-disclosure agreement between the companies dated January 14, 2002.

From late January 2002 through February 17, 2002, representatives of CIENA and its advisors performed a detailed review of ONI Systems' business operations, affairs and prospects. ONI Systems' management made presentations to these representatives and advisors regarding ONI Systems' business and finances, and these representatives and advisors reviewed ONI Systems' legal and business documents.

From late January 2002 through February 17, 2002, representatives of ONI Systems and its advisors performed a detailed review of CIENA's business operations, affairs and prospects. CIENA management made presentations to these representatives and advisors regarding CIENA's business and finances, and these representatives and advisors reviewed CIENA's legal and business documents.

On January 29, 30 and 31, 2002, a CIENA due diligence team conducted a series of meetings with ONI Systems' representatives at the offices of Fenwick & West in Palo Alto, California and at a nearby hotel. CIENA representatives at those meetings included Messrs. Finch, Chinnici, Chaddick and Livas, Jesus Leon, CIENA's Senior Vice President, Metro Transport and Metro Switching Divisions, and Dawn DiRocco, CIENA's Senior Director, Global Financial Operations and Assistant Controller. CIENA's financial advisors from Morgan Stanley, accounting advisors from PricewaterhouseCoopers LLP and legal advisors from Hogan & Hartson L.L.P. were also present at one or more of those meetings. ONI Systems representatives at those meetings included Messrs. Martin, Sharma, Cumpston, Page and Mitalas, David Lam, Senior Manager of Business Development, Michael Dillon, Vice President and General Counsel, George Reyes, Interim Chief Financial Officer, Lisa Blos-Johnson, Vice President, Human Resources, Stewart Grierson, Corporate Controller, Robert Jandro, Executive Vice President, Global Sales and Services, Ken Burckhardt, former Vice President, Finance and Interim Chief Financial Officer, Peter Evans, Senior Vice President, Product Marketing, Martin Desroches, Vice President, Operations, Jalal Habelrih, Vice President, Switching Product Development, and Robert Schlossman, Senior Counsel. ONI Systems' financial advisors from Goldman Sachs and legal advisors from Fenwick & West were also present at one or more of those meetings. At these meetings CIENA and ONI Systems presented information on various topics, including human resources, manufacturing, procurement, sales, taxes, technology, operations, business outlook and potential field synergies.

On January 30, 2002, CIENA directed Hogan & Hartson to send to ONI Systems and Fenwick & West a first draft of a definitive merger agreement and related agreements.

Also on January 30, 2002, Company A contacted ONI Systems about continuing discussions regarding a potential business combination or other strategic relationship. Following this discussion, Messrs. Martin and Sharma met with executives of Company A in Denver regarding a potential business combination between ONI Systems and Company A.

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On January 31, 2002, the ONI Systems board of directors held a meeting by teleconference to receive an update from management regarding the status and substance of the discussions with CIENA and Company A. A representative of Fenwick & West reviewed the significant terms of the proposed Agreement and Plan of Merger between CIENA and ONI Systems. Mr. Martin led a discussion about the proposed transaction with CIENA and the possibility of a transaction with Company A. Mr. Martin then described the proposed approach to due diligence regarding CIENA. After lengthy discussion the board directed management to proceed with their due diligence efforts and to pursue active negotiations of the merger agreement and ancillary agreements.

Also on February 1, 2002, the CIENA due diligence team and representatives from Morgan Stanley made an informal presentation regarding the proposed transaction to the CIENA board of directors. On the same date, an ONI Systems due diligence team held due diligence meetings with CIENA representatives at the offices of Hogan & Hartson in Baltimore, Maryland to continue ONI Systems' due diligence investigation regarding CIENA's business, operations, sales pipeline and finances. ONI Systems' representatives included Messrs. Martin, Cumpston, Burckhardt, Evans, Page, Dillon, Reyes and Lam. Investment banking advisors from Goldman Sachs, on behalf of ONI Systems, were also present. CIENA representatives at one or more of those meetings included Messrs. Smith, Chinnici and Finch, and Michael McCarthy, Senior Vice President Worldwide Sales and Support, Mark Cummings, Senior Vice President Operations, Rebecca Seidman, Senior Vice President Human Resources, Phil Moser, Vice President Sales Operations, Lynn Moore, Vice President Compensation and Acquisition Strategy, Russell B. Stevenson, Jr., Senior Vice President and General Counsel, Andrew C. Petrik, Vice President, Controller and Treasurer and Stephen Kaye, Vice President Corporate Development, as well as representatives from Morgan Stanley.

On February 3, 2002, Mr. Smith contacted Mr. Martin by telephone and discussed certain financial information with respect to CIENA. In light of the lack of progress of the discussions, and CIENA's disclosure to ONI Systems that CIENA expected to make a preliminary announcement about its first quarter 2002 earnings in the next several days, Mr. Smith and Mr. Martin agreed to suspend further negotiations.

On February 4, 2002, ONI Systems and Company A entered into a mutual non-disclosure agreement. ONI Systems management began its due diligence investigation of Company A, including Company A's business and finances, and began providing similar due diligence information to representatives of Company A. ONI Systems did not inform CIENA of its negotiations with Company A but was subsequently aware that ONI Systems may have been in discussions with one or more other parties.

On February 5, 2002, CIENA publicly announced its anticipated first quarter 2002 earnings.

On February 6, 2002, the ONI Systems board of directors held a meeting by teleconference to receive an update from management regarding the status and substance of the discussions with CIENA and Company A. Mr. Martin reviewed information resulting from ONI Systems' due diligence efforts and described the agenda for a proposed meeting with Mr. Smith. After a lengthy discussion the board directed management to continue their due diligence efforts and to resume active negotiations of the merger agreement and ancillary agreements.

As a result of ONI Systems' decision to proceed with negotiations, on February 6, 2002, ONI Systems caused Fenwick & West to send to CIENA comments on the draft of the merger agreement and ancillary agreements on behalf of ONI Systems.

On February 8, 2002, representatives of ONI Systems' management met with representatives of Company A at a conference center in San Jose to continue due diligence investigations, including engineering, research and development, product roadmaps and market outlook. Later that day, the representatives of ONI Systems management and the representatives of Company A met at ONI Systems' offices and the representatives of Company A were given a tour of ONI Systems' manufacturing and engineering facilities.

At a meeting on February 8, 2002, the ONI Systems board of directors discussed the status of Goldman Sachs' contacts with the parties potentially interested in pursuing a strategic transaction.

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Mr. Martin presented the board with a detailed update of its plans for the due diligence meetings scheduled for February 9 and 10, 2002 and its investigations of CIENA including a review of CIENA's customers and revenue forecasts. Mr. Cumpston then reviewed the results of his recent meetings with engineering representatives of Company A and Mr. Martin updated the board on current discussions with Company A. The board discussed the proposed strategy for negotiations with CIENA and further due diligence with Company A. The board instructed management to continue its due diligence investigations and requested additional information about CIENA's revenue forecasts and customers.

On February 9 and 10, 2002, CIENA and ONI Systems and their financial and legal advisors attended due diligence meetings in Palo Alto.

Also on February 9 and 10, 2002, representatives of ONI Systems and Company A conducted detailed technical due diligence of the each other's products and technologies.

During the week of February 11, 2002, representatives of CIENA and ONI Systems and their respective legal advisors continued to negotiate the merger agreement and ancillary agreements.

On February 11 and 12, 2002, a representative of Goldman Sachs spoke with a representative of Company A's financial advisor regarding the potential timing of, and additional due diligence required for, a specific proposal from Company A. Company A's financial advisor indicated that Company A was not then prepared to make a specific proposal.

On February 14, 2002, CIENA provided Messrs. Cumpston and Sharma with drafts of employment agreements. These agreements were negotiated over the next three days.

On February 15, 2002, the CIENA board of directors held a meeting by teleconference, at which CIENA's senior management team presented the proposed terms of the merger. Representatives of Hogan & Hartson L.L.P. also participated in the meeting. The board also reviewed a presentation by Morgan Stanley on the financial terms of the proposed merger, and Morgan Stanley delivered its opinion, subsequently confirmed in writing, that as of February 15, 2002, the exchange ratio pursuant to the merger agreement was fair to CIENA from a financial point of view. At the conclusion of the meeting, the CIENA board approved the terms of the merger and authorized management to complete and execute the merger agreement and related agreements. On that date, the closing price of CIENA common stock was \$8.73, which implies a consideration value of \$6.20 per share of ONI Systems common stock. The closing price of ONI Systems common stock on the same date was \$5.54.

Also on February 15, 2002, in the early afternoon, the ONI Systems board of directors held a special meeting with ONI Systems' management and representatives of Fenwick & West and Goldman Sachs to discuss the CIENA transaction. Mr. Martin presented a detailed summary of the strategic rationale for the merger, an overview of the key transaction terms and the employment agreements to be entered by Messrs. Cumpston and Sharma. In addition, several members of ONI Systems' management team presented detailed discussions of the due diligence of CIENA conducted by ONI Systems, including product fit and positioning of CIENA and ONI Systems, CIENA's financial and accounting condition, synergies that may be realized by combining CIENA and ONI Systems, CIENA's sales pipeline, CIENA's research and development, CIENA's operations, legal matters regarding CIENA, including those associated with CIENA's intellectual property, customer contracts, significant licenses and outstanding litigation, and CIENA's human resources function and policies. Representatives of Goldman Sachs made a detailed presentation to the board and stated that Goldman Sachs was prepared to proffer its opinion that, as of such date, the exchange ratio is fair to the stockholders of ONI Systems from a financial point of view. Representatives of Fenwick & West led a detailed discussion of the terms of the proposed merger, the proposed merger agreement and the related agreements, including the proposed stockholder and affiliate agreements, the terms of the non-solicitation covenants, the proposed employment agreements, the termination sections and the consequences of termination and the fiduciary duties of the ONI Systems' board with respect to the proposed transaction. The board continued its discussion of the proposed merger and the risks associated therewith. The ONI Systems board of directors considered the possibility of other potential transactions, including a combination with Company A. The board noted that

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no specific alternative proposal had been forthcoming from Company A, that no other company had indicated substantial interest in a strategic relationship, and that Company A had indicated that a lengthy additional due diligence investigation by Company A would be required before Company A would consider whether to make a specific proposal, and weighed these factors against the relative certainty associated with the CIENA negotiations, which had proceeded further to date. The possibility of an alternative transaction with Company A or another company was further weighed against the possibility that CIENA might have been unwilling to proceed on the terms then under discussion if ONI Systems continued to engage in discussions with Company A or others. The ONI Systems board also considered that a definitive merger agreement with CIENA would contain provisions allowing ONI Systems to consider and respond to future unsolicited proposals from Company A or any other party if the ONI Systems board made a finding that it was required to do so to comply with its fiduciary duties to its stockholders, subject to the payment to CIENA of a \$36.7 million merger termination fee plus up to \$2 million of expenses and other provisions. The board also considered that the non-solicitation covenants in the merger agreement would preclude ONI Systems from initiating further discussions with Company A or any other party. Similarly, the board evaluated the discouraging effect that the substantial termination fee could have on other parties interested in pursuing a transaction with ONI Systems. The board then agreed to meet again later that evening to continue its consideration of the proposed merger.

In the evening on February 15, 2002, the ONI Systems board held an additional special meeting by teleconference with representatives of Fenwick & West and Goldman Sachs to discuss the CIENA transaction, including additional discussion of the proposed employment agreements for Messrs. Cumpston and Sharma and a presentation regarding the principal terms of a consulting agreement to be entered by Mr. Martin. The board had a further discussion of the terms and conditions, and advisability of, the proposed merger. Representatives of Goldman Sachs proffered Goldman Sachs' opinion that, as of such date, the exchange ratio was fair to the stockholders of ONI Systems from a financial point of view. At the conclusion of the meeting, the board approved the merger, merger agreement and related agreements.

On February 16, 2002, CIENA provided Mr. Martin with a draft consulting agreement, which was negotiated on February 16 and 17, 2002.

On February 16 and 17, 2002, representatives of CIENA and ONI Systems finalized the merger agreement and ancillary agreements. In addition, representatives of CIENA and each of Messrs. Martin, Cumpston and Sharma negotiated and finalized the employment and consulting agreements. In addition, Messrs. Smith and Martin had several discussions regarding organizational issues in connection with the merger. The merger agreement and related documents were executed on the evening of February 17, 2002.

On February 18, 2002, CIENA and ONI Systems issued a joint press release announcing the signing of the merger agreement.

On the evening of February 20, 2002, Mr. Smith called Mr. Martin and informed him that due to information recently received by CIENA, it had revised downward its revenue outlook for the fiscal second quarter of 2002.

On the morning of February 21, 2002, CIENA publicly announced its financial results for the fiscal first quarter of 2002 and its revenue outlook for the fiscal second quarter of 2002 of approximately \$100 million in revenue. CIENA's revised revenue outlook for its second quarter revenues were substantially lower than the range of estimates CIENA had previously provided to ONI Systems. The closing price of CIENA common stock decreased from \$8.70 on February 20, 2002, to \$7.60 on February 21, 2002.

On February 22, 2002, representatives of ONI Systems and a representative of Goldman Sachs, met in CIENA's offices with representatives of CIENA to review and discuss CIENA's revised revenue outlook. During the evening of February 22, 2002, the ONI Systems board of directors met to discuss the merger and CIENA's revised revenue outlook. Mr. Reyes, Mr. Page and a representative of Goldman Sachs presented a report on the results of their inquiry and discussions with CIENA earlier that day. The board discussed these events, and, in consultation with ONI Systems' financial and legal advisors,

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considered the impact of these developments on the merger. The board requested that additional information regarding CIENA's revenue outlook be obtained.

From February 22, 2002 through March 15, 2002, representatives of ONI Systems and CIENA and their financial advisors held numerous meetings and discussions regarding the merger and exchanged additional information concerning each party's revenue outlook, other financial information and customer relationships.

On February 27, 2002, the ONI Systems board of directors met to discuss further the merger with CIENA and the results of management's review and discussions with CIENA. The board, in consultation with Fenwick & West, discussed the additional information obtained and instructed management to obtain additional information.

On March 5 and 11, 2002, the ONI Systems board of directors met to discuss further the merger and the business outlook of both companies. A representative of Goldman Sachs reviewed recent industry events and trends and presented certain preliminary financial analyses based on updated information. The board consulted further with representatives of Goldman Sachs and Fenwick & West and instructed management to continue its review.

On March 13, 2002, Mr. Martin informed Mr. Smith that due to recent information received from its customers, ONI Systems was considering revising downward its revenue outlook for its fiscal first quarter. Representatives of CIENA discussed this information internally and with its financial and legal advisors, in the context of the information on revenue outlook that CIENA had been provided by ONI Systems at the meetings between representatives of the companies since February 15, 2002.

On March 15, 2002, the ONI Systems board of directors held a meeting to discuss the filing of the ONI Systems annual report and the results of management's further inquiry. The board considered, and consulted further with representatives of Fenwick & West regarding, the fiduciary duties of the ONI Systems board with respect to the merger.

On March 18, 2002, ONI Systems publicly announced its revised revenue outlook for the fiscal first quarter of 2002 of approximately \$18 to \$24 million in revenue which was substantially lower than their publicly announced estimate of flat to modestly down from their first quarter revenues of \$42.2 million.

On March 18, 2002, CIENA's board of directors met and discussed, among other things, the merger and ONI Systems' revised first quarter revenue outlook as announced by ONI Systems earlier in that day. On that date, the closing price of CIENA common stock was \$8.89, which implies a consideration value of \$6.32 per share of ONI Systems common stock.

Also on March 18, 2002, the ONI Systems board of directors met. Mr. Martin gave a presentation of each company's financial outlook. At the request of the ONI Systems board of directors, representatives of Goldman Sachs presented a detailed financial analysis and proffered Goldman Sachs' opinion that as of March 18, 2002, the exchange ratio of 0.7104 shares of CIENA common stock per share of ONI Systems common stock pursuant to the merger agreement was fair to the stockholders of ONI Systems from a financial point of view. Representatives of Fenwick & West led a discussion of, and the board considered, the merger and the fiduciary duties of the ONI Systems board with respect to the transaction. After consideration of the benefits and risks of the merger at the conclusion of the meeting, the board reaffirmed its recommendation to stockholders and authorized the solicitation of stockholder approval.

Recommendation of CIENA's Board of Directors and Reasons for the Merger

Strategic Fit

CIENA believes that a combination of CIENA, a leader in next-generation core optical networking equipment, and ONI Systems, a leader in next-generation metropolitan optical networking equipment, will result in one of the leading optical networking equipment companies in the world. ONI Systems currently possesses one of the leading products in the next-generation metropolitan DWDM space, which will complement and strengthen CIENA's existing product line. CIENA believes that with an advanced,

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comprehensive and best-in-breed product portfolio extending from the core to the edges of the converged network, the combined company will be in a better position to further drive down the cost of operations for its customers and to execute on CIENA's LightWorks™ initiative, providing an end-to-end intelligent optical architecture that provides customers with scalability, interoperability, provisioning and protection flexibility and reliability. In particular, CIENA believes that the following benefits will result from the merger:

- **Product Compatibility.** Optical networking products of the type offered by CIENA and ONI Systems perform a variety of functions, including “switching” (directing optical communications signals to their proper destination) and “transport” (transporting pulsed waves of light over optical fiber from one point to another and amplifying the signal as necessary to overcome transmission losses). Optical networks are conventionally divided into a “core” portion (which carries signals between metropolitan regions) and a “metro” portion (which carries signals within metropolitan regions), which is closer to the “edge” of a network.

CIENA's offerings include products designed for switching and transport, both in the core and metro portion of the network. ONI Systems products are designed primarily for use in the metro portion of the network. Its ONLINE series of products are used primarily for metro transport. They can handle a variety of different communications protocols and services, including SONET, Storage Area Networks, and Gigabit Ethernet.

CIENA believes that the ONI Systems products are compatible with both CIENA's CoreDirector™ (core switch) and MetroDirector K2™ (metro switch). ONI Systems' ONLINE products can be made to interconnect with both CoreDirector and MetroDirector and thus to transport optical signals to and from them within metro networks. CIENA believes this capability will strengthen its own suite of product offerings, both allowing it to sell complete systems to its customers and to offer “best-of-breed” products on a stand-alone basis. The ability of ONI Systems' ONWAVE technology to handle multiple types of optical communications services adds to the value of its products as an addition to CIENA's product portfolio. Adding this ability to CoreDirector and MetroDirector will enable CIENA to extend its service delivery capability closer to the edge of the network.

CIENA calls the network architecture created by its products “LightWorks.” The components of CIENA's LightWorks architecture can be sold together as a complete network solution or as separate best-of-breed products. CIENA's LightWorks architecture is designed to dramatically simplify a carrier's network by reducing the number of network elements. With appropriate modifications, the ONLINE products (ONLINE7000 and ONLINE9000) will integrate into LightWorks as the vehicle for metropolitan optical transport, directing data traffic to CoreDirector and MetroDirector.

- **Customer Relationships.** CIENA believes that ONI Systems has developed valuable relationships with regional bell operating companies and other domestic and international incumbent carriers. CIENA believes that these relationships will enhance CIENA's ability to compete for business from RBOCs and complement CIENA's existing sales and distribution channels. In addition, the merger with ONI Systems will expand CIENA's existing customer base, bringing up to 20 new customer relationships to CIENA. Conversely, CIENA believes it will be able to leverage its existing sales channels and customer relationships to offer the ONI Systems product to a wider range of customers than ONI Systems currently reaches.
- **Stronger Platform.** CIENA believes that the proposed merger will provide CIENA with a larger addressable metropolitan customer base and a stronger presence with incumbent carriers. CIENA believes there is significant potential to acquire customers interested in a more comprehensive, end-to-end “intelligent optical networking” solution that would be made possible by the merger combination and the expanded product portfolio. In addition, CIENA believes that, based on the needs of each of CIENA's and ONI Systems' customer base, there will be substantial cross selling opportunities to both sets of customers.

Additional Reasons for the Merger

The strategic fit with ONI Systems represents the principal rationale for the merger. 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:

- ***Operating Expense Savings.*** It is expected that the proposed merger will result in annualized operating expense savings of approximately \$55 million to \$65 million. These savings will primarily be derived from the elimination of duplicative infrastructures and the ability to take advantage of economies of scale. Additional savings may be possible through increased manufacturing efficiencies.
- ***Cultural Vision.*** CIENA and ONI Systems share a common heritage as entrepreneurial startups as well as complementary visions of “distributed network intelligence.” Both companies have established reputations for being flexible, innovative, agile and customer-focused. CIENA believes that this could result in fewer integration challenges than would be expected for organizations with dissimilar cultural values.
- ***World Class Engineering Teams.*** CIENA believes that ONI Systems’ engineering team is world class in quality, and would add significantly to CIENA’s ability to continue to innovate and rapidly bring new products to market.

In reaching the decision to approve the merger with ONI Systems, the CIENA board of directors also considered, in addition to other matters, the following factors that may be relevant to CIENA stockholders:

- The effect on CIENA stockholder value of the pending ONI Systems merger, in light of the financial condition and prospects of CIENA and the current economic and industry environment. In particular, the CIENA board of directors discussed some of the risks of the merger, in particular the risks of integration of ONI Systems into CIENA’s operations. It balanced these risks against the longer-term strategic advantages anticipated from the transaction, in particular a substantial expansion of addressable market opportunities and customer relationships over those available to CIENA without the acquisition.
- The premium paid to ONI Systems stockholders over the price of ONI Systems common stock prior to the announcement of the merger. Based on the closing prices of the common stock of the two companies on February 15, 2002, that premium was approximately 12%.
- The risk facing CIENA that the integration of the businesses and management teams of CIENA and ONI Systems may not be successful and therefore the desired synergies might not be achieved.
- CIENA’s board of directors discussed the risks of retaining the key personnel of ONI Systems in view of their ability to sell their CIENA common stock immediately after the merger, at prices that could enable some key employees to become financially independent.
- 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 conditions to closing.

In addition, the CIENA board of directors received advice from Morgan Stanley, its financial advisor, as to the financial aspects of the proposed merger, and received an opinion from Morgan Stanley that, as of February 15, 2002, the exchange ratio pursuant to the merger agreement was fair from a financial point of view to CIENA.

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In view of the variety of factors considered in connection with its evaluation of the merger, the CIENA board of directors did not quantify or otherwise assign relative weights to the factors considered in reaching its conclusions. In addition, individual members of the CIENA board of directors may have given different weights to different factors. However, on an overall basis, the CIENA board of directors concluded that the factors favoring the merger outweigh the countervailing factors.

For the strategic reasons set forth above, after consultation with CIENA's senior management and its advisors, and consideration of the terms and conditions of the merger agreement and the transactions contemplated by the merger agreement, the CIENA board of directors determined that the merger agreement and the merger are in the best interests of CIENA and its stockholders.

The CIENA board of directors has not requested an updated opinion from Morgan Stanley. The opinion delivered on February 15, 2002, addresses the fairness, from a financial point of view, of the merger consideration, which is a fixed exchange ratio. The CIENA board of directors does not believe that recent developments in the business or outlook of CIENA and ONI Systems negatively affect the strategic or financial factors that make the merger attractive to CIENA or alter the fairness of the exchange ratio to CIENA.

Recommendation of the ONI Systems' Board of Directors and Reasons for the Merger

The ONI Systems board of directors believes that the combination of CIENA and ONI Systems will create a strong company that for the first time is able to offer telecommunications and data communications service providers end-to-end and best-of-breed solutions. Combining the complementary product sets and development efforts of CIENA and ONI Systems would create a stronger competitor that is able to accelerate the deployment of next-generation optical networking equipment.

In reaching the conclusion that the combination of CIENA and ONI Systems is in the best interests of ONI Systems and its stockholders, the board of directors of ONI Systems consulted with senior members of ONI Systems management team regarding the strategic and operational aspects of the merger and the results of the due diligence efforts undertaken by management. In addition, throughout the period in which it was engaged in active deliberations concerning the merger, the board of directors sought and received financial advice from Goldman Sachs concerning, among other things, strategic alternatives available to ONI Systems, the financial implications of such alternatives and the merger, and certain financial analyses that Goldman Sachs prepared. The board of directors also sought and received Goldman Sachs' opinions as to the fairness, from a financial point of view, to ONI Systems' stockholders of the proposed exchange ratio, which opinions were confirmed in writing and are described below under "The Merger — Opinion of ONI Systems' Financial Advisor." The board of directors of ONI Systems also consulted with ONI Systems' internal counsel and with representatives of Fenwick & West LLP, outside counsel to ONI Systems, regarding the duties of the members of the board of directors, legal due diligence matters and the terms of the merger agreement and related agreements.

In considering the information provided by senior members of ONI Systems' management team, representatives of Goldman Sachs and representatives of Fenwick & West LLP, in analyzing the terms of the merger agreement, and in coming to its endorsement of the merger and its determinations to recommend approval and adoption of the merger agreement to ONI Systems' stockholders, the board of directors considered several potential benefits of the merger, including:

- the opportunity to create a world-class optical networking company with best-of-breed end-to-end solutions at a time when telecommunications equipment providers are challenged by internal turmoil and difficult market conditions;
- the potential to create a combined company with the resources to serve the needs of communications service providers for next-generation optical networking products;
- the complementary nature of ONI Systems' dynamic optical architecture and leading metropolitan wave division multiplexing network products with CIENA's product family, particularly in the area of metropolitan networks;

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- the opportunity to combine ONI Systems' and CIENA's sales forces, combining ONI Systems' current customer momentum with CIENA's established product family to put the combined company in a stronger position to compete for product sales to communication service providers as their activity in building out communications networks resumes and spending on optical networking equipment rebounds;
- combining the complementary strengths of CIENA's and ONI Systems' management and technical teams to create a technical team with increased depth and breadth of knowledge of the communications equipment industry, and a management team with more business experience than either company has alone;
- the potential for the combined company to reach profitability earlier than would be the case for either company independently, as a result of a stronger product offering, potential revenue synergies, cross-selling opportunities, operating efficiencies (including expected annualized operating expense savings of approximately \$55 million to \$65 million), including volume purchases and to greater use of contract manufacturing, administrative efficiencies, combined development efforts, and more efficient utilization of in-house manufacturing capabilities; and
- the prospect of an improved competitive and market position for the combined company, which would offer a broad, integrated product suite providing customers with an end-to-end transport and switching products.

In the course of its deliberations, the ONI Systems board of directors reviewed a number of factors relevant to the merger in consultation with ONI Systems' management and outside legal counsel and financial advisors, including the strategic overview for ONI Systems and interests of some ONI Systems officers and directors in the merger that differ from those of ONI Systems stockholders generally. The ONI Systems board of directors also considered the following factors, among others, in connection with its review and analysis of the merger and its determinations to recommend approval and adoption of the merger agreement to the ONI Systems stockholders:

- historical information concerning CIENA's and ONI Systems' businesses, results of operations and financial condition, technology, management and competitive positions and publicly available information about CIENA and ONI Systems;
- ONI Systems' management's view as to the businesses, results of operations and financial condition, technology, management and competitive positions of CIENA and ONI Systems, both with and without giving effect to the merger, based on due diligence and publicly available earnings estimates;
- projections of financial benefits of the merger, including potential cost savings and costs anticipated prior to and after the merger, that were prepared by ONI Systems' management based on due diligence;
- the content of CIENA's announcements of its anticipated financial condition and results of operations for its first quarter of 2002 and its actual financial condition and results of operations for that quarter and its revenue outlook for the second quarter of 2002;
- the substantial accounting charges and costs to be incurred in connection with the merger, including the costs of integrating the businesses and transaction expenses arising from the merger;
- current financial market conditions and historical market prices, volatility and trading information with respect to CIENA common stock and ONI Systems common stock;
- their assessment of whether the proposed merger with CIENA would enable stockholders of ONI Systems to realize greater value for their shares sooner and with more certainty than other possible strategic alternatives for ONI Systems, such as internal development for new products, strategic alliances, joint ventures, co-marketing arrangements or business combinations involving other companies;

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- the ability of ONI Systems' board of directors, in the exercise of its fiduciary duties in accordance with the merger agreement, to authorize ONI Systems' management to provide information to, engage in negotiations with, and potentially enter into a transaction with another party as described under "The Merger Agreement — No Solicitation by ONI Systems";
- the limited conditions to CIENA's obligation to close the merger;
- the expectation that the merger would qualify as a tax-free reorganization;
- the premium that the merger would provide ONI Systems stockholders over the market price for their ONI Systems common stock immediately prior to the announcement to the merger and the premium that would be provided at various market prices for CIENA common stock;
- the exchange ratio set forth in the merger agreement and the percentage ownership of the combined company to be owned by ONI Systems' stockholders;
- the financial analysis and opinion of Goldman Sachs proffered on February 15, 2002 to the effect that, as of that date and subject to and based on the considerations described in its opinion, the exchange ratio was fair from a financial point of view to holders of ONI Systems common stock;
- reports from management, legal advisors and financial advisors about the results of their investigations of CIENA; and
- the financial analysis and opinion of Goldman Sachs proffered on March 18, 2002 to the effect that, as of that date and subject to and based on the considerations described in its opinion, the exchange ratio was fair from a financial point of view to holders of ONI Systems common stock.

The ONI Systems board of directors also considered a number of potential risks in its deliberations concerning the merger and its determinations to recommend approval and adoption of the merger agreement to the ONI Systems' stockholders, including:

- the risks that the benefits, including expected synergies and cost savings, sought to be achieved by the merger would not be realized;
- the unpredictability of demand for CIENA's and ONI Systems' products;
- the risk that CIENA and ONI Systems would not be able to integrate their product lines, technologies and organizations, and otherwise integrate the companies;
- the risk that using a fixed exchange ratio would mean that the aggregate value of the consideration received by ONI Systems stockholders upon consummation of the merger could be less than the value immediately prior to the announcement of the merger;
- the risk that the merger might not be consummated;
- the risk that the merger and the announcement of the merger agreement might disrupt CIENA's or ONI Systems' relationships with current and potential customers;
- the possibility of distraction of management and employees and the possible loss of employees, including key personnel, in connection with the integration of the companies; and
- other risks relating to the operations of the combined company and the merger, including those described in "Risk Factors."

In addition, ONI Systems' board of directors considered the interests that its officers and directors may have with respect to the merger in addition to their interests as ONI Systems stockholders. See "— Interests of Executive Officers and Directors in the Merger" for a more complete discussion of these interests.

The discussion of the information and factors considered by the ONI Systems board of directors is not intended to be exhaustive. In view of the variety of factors considered in connection with its evaluation of the merger, the board of directors did not find it practicable to, and did not, quantify or otherwise assign relative weight to, the specific factors considered in reaching its determination. In addition, the ONI

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Systems board of directors did not undertake to make any specific determination as to whether any particular factor was favorable or unfavorable to its ultimate determination. Rather, the board of directors conducted an overall analysis of the factors described above, including through discussions with and questioning of ONI Systems management and management's analysis of the proposed merger, based on information received from legal, financial and accounting advisors. In considering the factors described above, individual members of the board of directors may have given different weight to different factors. ONI Systems' board of directors concluded that, on balance, the potential benefits to ONI Systems and its stockholders of the merger outweighed the risks associated with the merger.

CIENA and ONI Systems Relative Share Price Data

The following table sets forth the closing prices of the CIENA common stock and ONI Systems common stock as of 30 days before the merger was announced, the day before announcement of the merger, May , 2002, February 14, 2002 and the averages of the CIENA and ONI Systems closing prices for the five days, 10 days, 30 days, 60 days and 90 days prior to February 14, 2002. In addition, the implied consideration value has been provided for each of those four dates and for the period averages specified.

	CIENA Closing Price	ONI Systems Closing Price	Implied Consideration Value
May , 2002	\$	\$	\$
January 18, 2002 (thirty days preceding announcement)	\$13.54	\$5.41	\$ 9.62
February 15, 2002 (trading day preceding announcement)	\$ 8.73	\$5.54	\$ 6.20
February 14, 2002	\$ 9.12	\$5.35	\$ 6.48
5 day average	\$ 9.79	\$5.47	\$ 6.95
10 day average	\$ 9.83	\$5.07	\$ 6.98
30 day average	\$12.82	\$5.71	\$ 9.11
60 day average	\$14.95	\$6.53	\$10.62
90 day average	\$15.63	\$6.51	\$11.10

Opinion of CIENA's Financial Advisor

Under an engagement letter dated January 21, 2002, CIENA formally retained Morgan Stanley to provide it with certain financial advisory services in connection with the merger. Morgan Stanley was selected by CIENA based on Morgan Stanley's qualifications, expertise, reputation and its knowledge of the business and affairs of CIENA. At a meeting of CIENA's board of directors on February 15, 2002, Morgan Stanley rendered its oral opinion, subsequently confirmed in writing, that as of February 15, 2002, based upon and subject to the various considerations set forth in the opinion, the exchange ratio pursuant to the merger agreement was fair from a financial point of view to CIENA. The Morgan Stanley opinion does not speak to events that occurred after February 15, 2002.

The full text of the written opinion of Morgan Stanley, dated February 15, 2002, is attached as Annex D to this document. The opinion sets forth, among other things, the assumptions made, procedures followed, matters considered and limitations on the scope of the review undertaken by Morgan Stanley in rendering its opinion. We urge you to read the entire opinion carefully. Morgan Stanley's opinion is directed to CIENA's board of directors and addresses only the fairness, from a financial point of view, of the exchange ratio pursuant to the merger agreement to CIENA as of the date of the opinion. It does not address any other aspect of the merger and does not address the prices at which ONI Systems common stock or CIENA common stock will trade following the consummation of the merger, nor does it constitute a recommendation to any holder of CIENA common stock as to how to vote at CIENA's special meeting. The summary of the opinion of Morgan Stanley set forth in this joint proxy statement/prospectus is qualified in its entirety by reference to the full text of its opinion.

In rendering its opinion, Morgan Stanley, among other things:

- (i) reviewed certain publicly available financial statements and other business and financial information of ONI Systems and CIENA;
- (ii) discussed certain internal financial statements and other financial and operating data concerning ONI Systems prepared by the managements of ONI Systems and CIENA, respectively;

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- (iii) discussed certain financial forecasts, prepared by the managements of ONI Systems and CIENA, respectively;
- (iv) reviewed information relating to certain strategic, financial and operational benefits anticipated from the merger, prepared by the managements of ONI Systems and CIENA, respectively;
- (v) discussed the past and current operations and financial condition and the prospects of ONI Systems, including information relating to certain strategic, financial, and operational benefits anticipated from the merger, with senior executives of ONI Systems and CIENA, respectively;
- (vi) reviewed the pro forma impact of the merger on CIENA's earnings per share, consolidated capitalization and financial ratios;
- (vii) reviewed the reported prices and trading activity for ONI Systems common stock and CIENA common stock;
- (viii) compared the financial performance of ONI Systems and the prices and trading activity of ONI Systems common stock and CIENA common stock with that of certain other publicly-traded companies comparable with ONI Systems and CIENA, respectively, and their securities;
- (ix) reviewed the financial terms, to the extent publicly available, of certain comparable acquisition transactions;
- (x) participated in discussions and negotiations among representatives of ONI Systems and CIENA and their financial and legal advisors;
- (xi) reviewed the merger agreement and certain related documents; and
- (xii) considered such other factors and performed such other analyses as Morgan Stanley has deemed appropriate.

In rendering its opinion, Morgan Stanley assumed and relied upon, without independent verification, the accuracy and completeness of the information reviewed by it for the purposes of its opinion. With respect to the financial forecasts, including information relating to certain strategic, financial and operational benefits anticipated from the merger, Morgan Stanley assumed that they were reasonably prepared on bases reflecting the best currently available estimates and judgments of the future financial performance and prospects of ONI Systems. Morgan Stanley relied upon the assessment by the managements of ONI Systems and CIENA of their ability to retain key employees. Morgan Stanley also relied upon, without independent verification, the assessment by the managements of ONI Systems and CIENA as to their respective technologies and products, the timing and risks associated with the integration of ONI Systems and CIENA, and the validity of, and risks associated with, ONI Systems' and CIENA's existing and future products and technologies.

In addition, Morgan Stanley assumed that the merger will be consummated in accordance with the terms set forth in the merger agreement. Morgan Stanley did not make any independent valuation or appraisal of the assets or liabilities of ONI Systems, nor was it furnished with any such appraisals. Morgan Stanley's opinion is necessarily based on the financial, economic, market and other conditions as in effect on, and the information made available to it as of February 15, 2002.

The following is a brief summary of certain financial analyses performed by Morgan Stanley in connection with its opinion dated February 15, 2002. These summaries of financial analyses include information presented in tabular format. In order to fully understand the financial analyses used by Morgan Stanley, 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.

Contribution Analysis. Morgan Stanley analyzed the relative contribution of CIENA and ONI Systems to historical and estimated revenues and gross profit of the combined company for fiscal years 2002 and 2003 based on publicly available research estimates for CIENA and ONI Systems. Morgan Stanley's contribution analysis assumed no cost savings. Morgan Stanley then adjusted the relative

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contribution by each company in light of each company's capital structure in order to determine the implied pro forma ownership of the combined company. The range of results is set forth below:

	% Contribution	
	ONI Systems	CIENA
Revenues		
Last Quarter	23.7%	76.3%
FY2002E	23.9	76.1
FY2003E	23.1	76.9
Gross Profit		
Last Quarter	35.9%	64.1%
FY2002E	33.4	66.6
FY2003E	23.6	76.4

Morgan Stanley noted that the pro forma ownership of the combined company implied by the exchange ratio of 0.7104x set forth in the merger agreement would be 24% for ONI Systems and 76% for CIENA.

Comparable Company Analysis. Morgan Stanley compared selected financial information for ONI Systems and CIENA with publicly available information for comparable networking equipment companies. Based upon publicly available calendar year 2002 projected revenue estimates of certain securities research analysts and using the closing prices as of February 15, 2002, Morgan Stanley calculated, for each of these companies, the multiple (ratio) of aggregate value to projected calendar year 2002 revenue estimates. The following table shows the results of these calculations:

	Aggregate Value/ CY2002E Revenues
CIENA	3.1x
ONI Systems	2.6
Alcatel	1.0
Avici	(2.0)
Corvis	(2.3)
Extreme	2.2
Foundry	1.7
Lucent	1.3
Marconi	1.1
Nortel	1.5
Redback	4.5
Riverstone	3.1
Siemens	0.7
Sycamore	(0.3)
Tellabs	2.1
Tellium	0.2

Morgan Stanley noted that by using the closing prices on February 15, 2002, the multiple (ratio) of (a) the aggregate value of ONI Systems implied by the exchange ratio of 0.7104 as set forth in the merger agreement to (b) certain securities research analysts' publicly available projected calendar year 2002 revenue estimates for ONI Systems was 3.1x.

No company included in the comparable company analyses is identical to CIENA or ONI Systems. In evaluating the comparable companies, Morgan Stanley made judgments and assumptions with regard to industry performance, general business, economic, market and financial conditions and other matters.

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Many of these matters are beyond the control of CIENA or ONI Systems, such as the impact of competition on the business of CIENA or ONI Systems and the industry in general, industry growth and the absence of any material adverse change in the financial condition and prospects of CIENA or ONI Systems or the industry or in the financial markets in general. Mathematical analysis, such as determining the average or median, or the high or low, is not in itself a meaningful method of using comparable company data.

Discounted Equity Valuation (“DEV”) Analysis. Morgan Stanley reviewed current publicly available research analyst estimates for ONI Systems’ revenues. Morgan Stanley then applied a growth rate range of 25% to 35% to these estimates out to the calendar years of 2004 and 2006. Morgan Stanley used these growth rate estimates to derive a range of future share prices for ONI Systems by assuming a range of operating margins, which is income from operations over revenues, of 12.5% to 17.5% and a range of price to earnings multiples of 25x to 35x. Morgan Stanley then observed what the current share price of ONI Systems would be if these future share prices were discounted back to 2002 using a 19% illustrative discount rate (i.e., the rate used to determine the present value of future cash flows). Based on these assumptions, Morgan Stanley calculated the present value of future theoretical values to be approximately \$4.75 to \$10.75 per ONI Systems common share. Morgan Stanley further noted that the foregoing range of prices implied an exchange ratio range of 0.544x to 1.231x and compared it to the exchange ratio of 0.7104x as set forth in the merger agreement.

Precedent Transaction Analysis. Morgan Stanley compared certain publicly available statistics for selected networking equipment transactions from January 13, 1999 to November 19, 2001. The following table presents the premiums that would have been paid to the average exchange ratio (defined as the average of the quotients obtained by dividing ONI Systems’ closing share price by CIENA’s closing share price for each trading day in the specified time period) 30 days before the announcement of the transaction and the average exchange ratio 60 days before the announcement of the transaction:

	Premium to	
	30-Day Average Exchange Ratio	60-Day Average Exchange Ratio
Mean	51.9%	62.5%
Median	44.5%	53.3%
ONI Systems/ CIENA Premium	55.2%	60.1%

Based on the foregoing analysis, Morgan Stanley calculated an acquisition value range for the ONI Systems common stock of \$7.25 to \$8.25 per share. Morgan Stanley further noted that this range of prices implied an exchange ratio range of 0.830x to 0.945x and compared it to the exchange ratio of 0.7104x as set forth in the merger agreement.

No transaction included in the precedent transaction analysis is identical to the merger. In evaluating the precedent transactions, Morgan Stanley made judgments and assumptions with regard to industry performance, general business, economic, market and financial conditions and other matters. Many of these matters are beyond the control of CIENA or ONI Systems, such as the impact of competition on the business of CIENA or ONI Systems and the industry in general, industry growth and the absence of any material adverse change in the financial condition and prospects of CIENA or ONI Systems or the industry or in the financial markets in general. Mathematical analysis, such as determining the average or median, or the high or the low, is not in itself a meaningful method of using precedent transaction data.

Exchange Ratio Premium Analysis: Morgan Stanley reviewed the ratios of the closing prices of ONI Systems common stock divided by the corresponding closing prices of CIENA common shares over various periods ending February 15, 2002. These ratios are referred to as period average exchange ratios. Morgan Stanley examined the premiums represented by the exchange ratio of 0.7104x, set forth in the

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merger agreement, over the averages of these daily ratios over various periods and found them to be as follows:

Period Ending February 15, 2002	Period Average Exchange Ratio	Premium to Period Average Exchange Ratio
February 15, 2002	0.635x	11.9%
Prior 5 Trading Days	0.578	22.8
Prior 10 Trading Days	0.536	32.5
Prior 30 Trading Days	0.458	55.2
Prior 60 Trading Days	0.444	60.1
Prior 90 Trading Days	0.424	67.6

The preparation of a fairness opinion is a complex process and is not necessarily susceptible to a partial analysis or summary description. In arriving at its opinion, Morgan Stanley considered the results of all of its analyses as a whole and did not attribute any particular weight to any particular analysis or factor considered by it. Furthermore, Morgan Stanley believes that the summary provided and the analyses described above must be considered as a whole and that selecting any portion of Morgan Stanley's analyses, without considering all its analyses, would create an incomplete view of the process underlying Morgan Stanley's opinion. In addition, Morgan Stanley may have deemed various assumptions more or less probable than other assumptions, so that the range of valuations resulting from any particular analysis described above should not be taken to be Morgan Stanley's view of the actual value of CIENA or ONI Systems.

In performing its analyses, Morgan Stanley made numerous assumptions with respect to industry performance, general business and economic conditions and other matters, many of which are beyond the control of CIENA or ONI Systems. Any estimates contained in Morgan Stanley's analysis are not necessarily indicative of future results or actual values, which may be significantly more or less favorable than those suggested by such estimates. The analyses performed were prepared solely as part of Morgan Stanley's analysis of the fairness from a financial point of view of the exchange ratio pursuant to the merger agreement to CIENA and were conducted in connection with the delivery of the Morgan Stanley opinion dated February 15, 2002 to the board of directors of CIENA. The analyses do not purport to be appraisals or to reflect the prices at which CIENA common stock or ONI Systems common stock might actually trade.

The exchange ratio pursuant to the merger agreement and other terms of the merger agreement were determined through arm's length negotiations between CIENA and ONI Systems and were approved by the CIENA board of directors. Morgan Stanley provided advice to CIENA during such negotiations; however, Morgan Stanley did not recommend any specific consideration to CIENA or that any specific consideration constituted the only appropriate consideration for the merger. In addition, as described above, Morgan Stanley's opinion and presentation to the CIENA board of directors was one of many factors taken into consideration by CIENA's board of directors in making its decision to approve the merger. Consequently, the Morgan Stanley analyses as described above should not be viewed as determinative of the opinion of the CIENA board of directors with respect to the value of CIENA or of whether the CIENA board of directors would have been willing to agree to a different consideration.

Morgan Stanley is an internationally recognized investment banking and advisory firm. Morgan Stanley, as part of its investment banking and financial advisory business, is continuously engaged in the valuation of businesses and securities in connection with mergers and acquisitions, negotiated underwriting, competitive bidding, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. In the ordinary course of business, Morgan Stanley or its affiliates may at any time hold long or short positions, trade or otherwise effect transactions, for its own account or for the accounts of investment funds or other clients under the management of Morgan Stanley and for the accounts of its customers, in the equity or debt securities or senior loans of CIENA and/or ONI Systems.

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Pursuant to an engagement letter dated January 21, 2002, Morgan Stanley provided financial advisory services in connection with the merger, and CIENA agreed to pay Morgan Stanley a financial advisory fee of \$8 million upon completion of the merger. CIENA has also agreed to reimburse Morgan Stanley for its expenses (which are anticipated to be approximately \$160,000) incurred in performing its services. In addition, CIENA has agreed to indemnify Morgan Stanley and its affiliates, their respective directors, officers, agents and employees and each person, if any, controlling Morgan Stanley or any of its affiliates against certain liabilities and expenses, including certain liabilities under the federal securities laws, related to or arising out of Morgan Stanley's engagement and any related transactions. In the past, Morgan Stanley and its affiliates have provided financial advisory services for CIENA and have received fees for the rendering of these services.

CIENA and ONI Systems Relative Share Price Data

The following table sets forth the closing prices of the CIENA common stock and ONI Systems common stock as of 30 days before the merger was announced, the day before announcement of the merger, May , 2002, February 14, 2002 and the averages of the CIENA and ONI Systems closing prices for the five days, 10 days, 30 days, 60 days and 90 days prior to February 14, 2002. In addition, the implied consideration value has been provided for each of those four dates and for the period averages specified.

	CIENA Closing Price	ONI Systems Closing Price	Implied Consideration Value
May , 2002	\$	\$	\$
January 18, 2002 (thirty days preceding announcement)	\$13.54	\$5.41	\$ 9.62
February 15, 2002 (day preceding announcement)	\$ 8.73	\$5.54	\$ 6.20
February 14, 2002	\$ 9.12	\$5.35	\$ 6.48
5 day average	\$ 9.79	\$5.47	\$ 6.95
10 day average	\$ 9.83	\$5.07	\$ 6.98
30 day average	\$12.82	\$5.71	\$ 9.11
60 day average	\$14.95	\$6.53	\$10.62
90 day average	\$15.63	\$6.51	\$11.10

Opinion of ONI Systems' Financial Advisor

Goldman Sachs has acted as financial advisor to ONI Systems in connection with the merger. On February 15, 2002, Goldman Sachs proffered its oral opinion to the board of directors of ONI Systems, which opinion was subsequently confirmed in writing on February 17, 2002, the date of the merger agreement, that, as of the date of that opinion, the exchange ratio of 0.7104 shares of CIENA common stock to be received for each share of ONI Systems common stock pursuant to the merger agreement was fair from a financial point of view to the holders of shares of ONI Systems common stock. In addition, on March 18, 2002, at the request of the board of directors of ONI Systems, Goldman Sachs delivered its opinion to the board of directors of ONI Systems that, as of the date of that opinion, the exchange ratio of 0.7104 shares of CIENA common stock to be received for each share of ONI Systems common stock pursuant to the merger agreement was fair from a financial point of view to the holders of such shares of ONI Systems common stock, which opinion was subsequently confirmed in writing by means of an opinion letter dated as of March 18, 2002. The terms of the opinion letter dated February 17, 2002 were substantially identical to the terms of the opinion letter dated March 18, 2002.

The full text of the written opinion letter of Goldman Sachs dated March 18, 2002, which identifies assumptions made, matters considered and limitations on the review undertaken in connection with the opinion, is attached as Annex E to this joint proxy statement/prospectus. Goldman Sachs' advisory services and its opinions were provided for the information and assistance of the board of directors of ONI Systems in connection with its consideration of the merger. The Goldman Sachs opinions do not constitute a recommendation as to how any holder of shares of ONI Systems common stock should vote

with respect to the merger. Stockholders of ONI Systems are urged to, and should, read this opinion in its entirety.

In connection with its opinions, Goldman Sachs reviewed, among other things:

- the merger agreement;
- the annual reports to stockholders and annual reports on Form 10-K of ONI Systems for the year ended December 31, 2000 and of CIENA for the five fiscal years ended October 31, 2001;
- the registration statement on Form S-1 of ONI Systems, including the prospectus dated May 31, 2000 included therein;
- certain interim reports to stockholders and quarterly reports on Form 10-Q of ONI Systems and CIENA;
- certain other communications from ONI Systems and CIENA to their respective stockholders; and
- certain cost savings and operating synergies projected by the management of ONI Systems to result from the transaction contemplated by the merger agreement.

In addition, Goldman Sachs reviewed:

- certain forward looking management data for CIENA prepared by the management of CIENA;
- certain internal financial analyses and forecasts for ONI Systems prepared by the management of ONI Systems; and
- certain financial analyses and forecasts for CIENA prepared by the management of ONI Systems.

The data, analyses and forecasts that Goldman Sachs reviewed in connection with its March 18, 2002 opinion were updated versions of similar materials that it reviewed in connection with its February 17, 2002 opinion, but were generally of similar scope and level of detail.

Goldman Sachs also held discussions with members of the senior managements of ONI Systems and CIENA regarding their assessment of the strategic rationale for, and the potential benefits of, the transaction contemplated by the merger agreement and the past and current business operations, financial condition and future prospects of their respective companies. In addition, Goldman Sachs:

- reviewed the reported price and trading activity for the shares of ONI Systems and CIENA common stock,
- compared certain financial and stock market information for ONI Systems and CIENA with similar information for certain other companies the securities of which are publicly traded, and
- reviewed the financial terms of certain recent business combinations in the communications technology industry specifically and in other industries generally and performed such other studies and analyses as it considered appropriate.

Goldman Sachs relied upon the accuracy and completeness of all of the financial, accounting and other information discussed with or reviewed by it and assumed such accuracy and completeness for purposes of rendering its opinions. In addition, with the consent of the board of directors of ONI Systems, Goldman Sachs assumed that the internal financial analyses and forecasts for ONI Systems prepared by the management of ONI Systems, financial analyses and forecasts for CIENA prepared by the management of ONI Systems and cost savings and operating synergies projected by the management of ONI Systems to result from the transaction contemplated by the merger agreement were reasonably prepared on a basis reflecting the then best currently available estimates and judgments of ONI Systems. In addition, Goldman Sachs did not make an independent evaluation or appraisal of the assets and liabilities of ONI Systems or CIENA or any of their subsidiaries and Goldman Sachs was not furnished with any such evaluation or appraisal.

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The following is a summary of the material financial analyses used by Goldman Sachs in connection with providing its opinions to ONI Systems' board of directors. The following summary, however, does not purport to be a complete description of the analyses performed by Goldman Sachs. The order of the analyses described below does not represent the relative importance or weight given to those analyses by Goldman Sachs. **Some of the following summaries of financial analyses include information presented in tabular format. The tables alone are not a complete description of Goldman Sachs' financial analyses and should be read together with the text of each summary.**

Transaction Exchange Ratio and Premium Analysis: In connection with its February 17, 2002 opinion, Goldman Sachs reviewed the historical stock prices for ONI Systems common stock and CIENA common stock on the basis of their respective closing prices per share on February 14, 2002 and the respective closing prices and period averages for the prior five days, 10 days, 30 days, 60 days and 90 days. The following table presents:

- The implied exchange ratio, based on 147.9 million fully diluted shares of ONI Systems and 333.2 million fully diluted shares of CIENA, between the closing prices of ONI Systems common stock and CIENA common stock on February 14, 2002 and the implied exchange ratios calculated based on the average of the ratios between the closing prices of ONI Systems common stock and the closing prices of CIENA common stock on each day for the specified periods. "Implied exchange ratio" means the number of shares of CIENA common stock that would be equal in value to one share of ONI Systems common stock, based on the closing price data applicable to the given date or period.
- The premium over the implied exchange ratio is equal to the percentage by which the *actual* exchange ratio (0.7104 shares of CIENA common stock for each share of ONI Systems common stock) exceeds the implied exchange ratio.

<u>Date or Period</u>	<u>Implied Exchange Ratio</u>	<u>Premium Over Implied Exchange Ratio</u>
February 14, 2002	0.587x	21.1%
5 day average	0.559	27.0
10 day average	0.517	37.5
30 day average	0.452	57.2
60 day average	0.441	61.3
90 day average	0.422	68.5

The foregoing table indicates that in the merger any given number of shares of ONI Systems common stock would be exchanged for between 21.1% and 68.5% more shares of CIENA common stock than those shares could have been exchanged for based on closing prices for the date or periods specified above.

Goldman Sachs also reviewed the historical closing price of ONI Systems common stock on February 14, 2002 and the closing prices and period averages for the prior five days, 10 days, 30 days, 60 days and 90 days. The following table presents:

- The closing price of ONI Systems common stock on February 14, 2002 and the average of the closing prices of ONI Systems common stock for the specified periods.
- The premium over the closing price of ONI Systems common stock on February 14, 2002 and the average closing prices of ONI Systems common stock for the specified periods implied by the actual exchange ratio in the merger. The premium was calculated by multiplying the actual exchange ratio (0.7104 shares of CIENA common stock for each share of ONI Systems common stock) by the closing price of CIENA common stock on February 14, 2002 and determining the percentage by which the product of the calculation exceeds the closing price or average closing price of ONI Systems common stock for the date or periods specified above.

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Date or Period	Closing Price or Average Closing Price of ONI Systems Common Stock	Premium Over Closing Price or Average Closing Price of ONI Systems Common Stock Implied by the Exchange Ratio
February 14, 2002	\$5.35	21.1%
5 day average	5.47	18.4
10 day average	5.07	27.9
30 day average	5.71	13.4
60 day average	6.53	(0.8)
90 day average	6.51	(0.5)

The foregoing table indicates that in the merger the premium over the closing price or average closing price of ONI Systems common stock was calculated at between -0.8% and 27.9% based on the closing price or average closing price for the date or periods specified above.

In connection with its March 18, 2002 opinion, Goldman Sachs did not perform analyses similar to the analyses described above, as such analyses would not be informative after the proposed transaction had been announced because the announcement would likely have influenced movements in the ONI Systems stock price.

Consideration Multiple Analysis: In connection with its February 17, 2002 opinion, Goldman Sachs also calculated the levered consideration to be received by ONI Systems stockholders as a multiple of estimated calendar years 2002 and 2003 revenue by dividing the levered consideration by the estimated revenue. Goldman Sachs calculated that the fully diluted equity consideration in the merger, meaning the total consideration to be paid to ONI Systems common stockholders, assuming that all outstanding options are exercised, would be \$960 million. Goldman Sachs also determined that the levered consideration in the merger, meaning the fully diluted equity consideration less net cash would be \$581 million. Using ONI Systems' management high and low revenue projections for ONI Systems for fiscal years 2002 and 2003, Goldman Sachs derived levered consideration as a multiple of both low and high estimates of revenue.

The results of these analyses are as follows:

Low Estimate	Revenue (in millions)	Revenue Multiple
2002E	\$150	3.9x
2003E	350	1.7
High Estimate	Revenue (in millions)	Revenue Multiple
2002E	\$200	2.9x
2003E	400	1.5

The foregoing table indicates that, based on the analysis described above, the levered consideration in the merger was calculated at between 2.9 and 3.9 times the estimated calendar year 2002 revenue and was calculated at between 1.5 and 1.7 times the estimated calendar year 2003 revenue.

Goldman Sachs performed a similar analysis in connection with its March 18, 2002 opinion. Goldman Sachs calculated the levered consideration to be received by ONI Systems stockholders as a multiple of estimated calendar years 2002 and 2003 revenue. Goldman Sachs calculated that the fully diluted equity consideration in the merger would be \$940 million. Goldman Sachs also determined that the levered consideration in the merger, assuming no cash burn, meaning no depletion of cash by the combined company, would be \$562 million, based on the fully diluted equity consideration and net debt of \$379 million. Goldman Sachs also determined that the levered consideration in the merger, assuming cash burn for ONI Systems of \$272 million based on ONI Systems' revised management projections, would be \$834 million. Using ONI Systems' revised management high and low revenue projections for fiscal years

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2002 and 2003, Goldman Sachs derived levered consideration as a multiple of both low and high estimates of revenue.

The results of these analyses are as follows:

Low Estimate	Revenue (in millions)	Revenue Multiple (no cash burn)	Revenue Multiple (with cash burn)
2002E	\$125	4.5x	6.7x
2003E	225	2.5	3.7
High Estimate	Revenue (in millions)	Revenue Multiple (no cash burn)	Revenue Multiple (with cash burn)
2002E	\$150	3.7x	5.6x
2003E	315	1.8	2.6

The foregoing table indicates that, as a result of the analysis described above, the levered consideration in the merger, assuming no cash burn, was calculated at between 3.7 and 4.5 times the estimated calendar year 2002 revenue and is equal to between 1.8 and 2.5 times the estimated calendar year 2003 revenue. Assuming the cash burn estimated by ONI Systems management, the levered consideration in the merger was calculated at between 5.6 and 6.7 times the estimated calendar year 2002 revenue and in the merger was calculated at between 2.6 and 3.7 times the estimated calendar year 2003 revenue.

Selected Companies Analysis: In connection with its February 17, 2002 opinion, Goldman Sachs reviewed and compared specified publicly-available financial information of ONI Systems and CIENA with specified publicly-available financial information, ratios and public market multiples for the following broad systems and optical components communications technology companies:

Next Generation	Broad Systems
Corvis	Alcatel
Juniper	Cisco
Riverstone	Lucent
Sonus Networks	Nortel
Sycamore	Tellabs
Tellium	

The following table presents for ONI Systems and CIENA and the groups of next generation and broad systems communications technologies companies:

- The February 14, 2002 closing price as a percentage of the stock's 52 week high.
- Five-year forecasted compound annual growth rate of earnings per share, or EPS, meaning the forecasted rate at which EPS grows year over year, based on a five-year projection of EPS.
- Projected 2002 and 2003 calendar year price to EPS, or PE, ratios, meaning the quotient of the February 14, 2002 closing price divided by projected EPS.
- Enterprise value, meaning the equity market capitalization (or the total number of shares outstanding, assuming that all options are exercised, multiplied by the share price) less net cash, as a multiple of projected 2002 and 2003 revenue, obtained by dividing the enterprise value by the projected revenue.
- Projected 2002-2003 percentage revenue growth.

The multiples and other financial information calculated by Goldman Sachs were based on the closing prices on February 14, 2002 for ONI Systems, CIENA and the selected companies common stock and/or the most recent publicly available information for ONI Systems, CIENA and the selected companies. The projected PE ratios for calendar years 2002 and 2003 and the five-year EPS compound annual growth rate for ONI Systems, CIENA and the selected companies were based on median estimates provided by the

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Institutional Brokers Estimate System, or IBES. Enterprise value revenue multiples are based on securities analysts' projections and IBES estimates. Equity market capitalization was based on the most recent publicly available financial statements. The values provided below are in millions, except per share data.

Company	February 14, 2002 Closing Share Price as Percentage of 52 week High Share Price	PE Ratio		IBES 5-year EPS Compound Annual Growth Rate	Enterprise Value Revenue Multiple		Projected 2002-2003 Percentage Revenue Growth
		2002	2003		2002	2003	
ONI Systems	11.2%	NM	NM	25.0%	2.2x	1.7x	29.0%
CIENA	10.2	NM	NM	22.5	3.2	2.5	28.8
Selected Next Generation Companies							
Mean	15.4	43.4x	24.1x	31.7	2.8	2.1	36.7
Median	11.1	35.0	22.6	32.5	3.1	2.3	32.4
Selected Broad Systems Companies							
Mean	34.4	53.8	59.6	12.2	2.7	2.3	10.3
Median	30.5	53.8	38.9	16.0	2.2	2.0	11.6

Goldman Sachs also performed similar analyses with respect to its March 18, 2002 opinion. The following table presents for ONI Systems and CIENA and the groups of next generation and incumbent communications technologies companies:

- The March 15, 2002 closing price as a percentage of the stock's 52 week high.
- Five-year forecasted compound annual growth rate of EPS.
- Projected 2002 and 2003 calendar year PE ratios.
- Enterprise value as a multiple of projected 2002 and 2003 calendar year revenue.
- Enterprise value as a multiple of projected 2002 and 2003 calendar year revenue net excess cash, or the amount of cash burn required to break even.
- Projected 2002-2003 percentage revenue growth.

The multiples and other financial information calculated by Goldman Sachs were based on the closing prices on March 15, 2002 for ONI Systems, CIENA and the selected companies' common stock and/or the most recent publicly available information for ONI Systems, CIENA and the selected companies. The projected PE ratios for calendar years 2002 and 2003 for ONI Systems, CIENA and the selected companies were based on median estimates provided by IBES. Enterprise value revenue multiples are based on securities analysts' projections. Equity market capitalization was based on the most recent publicly available financial statements. The cash burn required to break even was based on an estimated cash burn (i) for ONI Systems of \$272 million based on ONI Systems' management projections, (ii) for CIENA of \$222 million based on ONI Systems' management projections and (iii) for all others, on the 2001 fourth quarter's estimated cash burn multiplied by six. The values provided below are in millions, except per share data.

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Company	March 15, 2002 Closing Share Price as Percentage of 52-week High Share Price	PE Ratio		IBES 5-Year EPS Compound Annual Growth Rate	Enterprise Value Revenue Multiple		Enterprise Value Revenue Multiple Less Net Excess Cash		Projected 2002-2003 Percentage Revenue Growth
		2002	2003		2002	2003	2002	2003	
ONI Systems	15.6%	NM	NM	30.0%	2.9x	2.3x	4.4x	3.4x	29.0%
CIENA	13.3	NM	NM	25.0	3.9	3.1	4.3	3.5	25.0
Selected Next Generation Companies									
Mean	17.7	84.1x	108.8x	31.7	2.5	2.4	2.6	2.4	29.9
Median	15.9	67.2	48.2	32.5	1.3	0.9	1.3	1.2	32.3
Selected Incumbent Companies									
Mean	40.0	52.9	63.0	12.6	2.2	2.0	2.4	2.2	12.2
Median	38.0	52.9	45.3	16.0	1.8	1.5	2.1	1.8	14.2

Selected Transactions Analysis: In connection with both its February 17, 2002 and March 18, 2002 opinions, Goldman Sachs analyzed certain information relating to the following 14 communications technology transactions since July 1997:

Acquiror	Target
Siemens AG	Efficient Networks
Nortel Networks	Alteon Websystems Inc.
Cisco Systems	Arrowpoint Communications
Alcatel SA	Newbridge Networks Corp.
Corning Inc.	NetOptix Corporation
Lucent Technologies Inc.	Ortel Corporation
Corning Inc.	Oak Industries
Nortel Networks	Clarify
Alcatel	Genesys Telecommunications Laboratories
Tellabs Inc.	CIENA Corporation (first transaction – not completed)
Tellabs Inc.	CIENA Corporation (second transaction – not completed)
Lucent Technologies Inc.	Yurie Systems, Inc.
Tellabs Inc.	Coherent Communications
Lucent Technologies Inc.	Octel Communications

For each transaction, Goldman Sachs analyzed:

- the levered aggregate consideration of the transaction;
- the levered aggregate consideration as a multiple of latest twelve months, or LTM, sales of the target company, obtained by dividing the levered aggregate consideration by LTM revenue;
- the ratio of the acquiror's LTM revenue multiple, obtained by dividing levered market value by the LTM revenue of the acquiror to the revenue multiple paid, obtained by dividing the levered aggregate consideration by LTM revenue of the target; and
- the premium paid in relation to market value of target's stock price one week prior to announcement.

This analysis indicated that, as of March 15, 2002, for the selected transactions (i) the median for levered aggregate consideration as a multiple of LTM sales was 9.2x, (ii) the median for the acquiror's

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LTM revenue multiple to revenue multiple paid was 0.4x, and (iii) the median for the premium to market value of target's stock price one week prior to announcement was 37.5%.

Contribution Analyses: In connection with its February 17, 2002 opinion, Goldman Sachs reviewed the estimated future operating and financial information, including, among other things, revenue, gross profit, operating income and net income, for ONI Systems, CIENA and the pro forma combined entity resulting from the merger based on ONI Systems' management projections. Goldman Sachs analyzed and compared the respective levered contributions of each of ONI Systems and CIENA to the combined company's projected high and low revenue and gross profit for each calendar year 2002 and 2003, meaning the percentage of the combined entity's revenue and gross profit represented by each company, based on ONI Systems' management estimates dated February 13, 2002. Goldman Sachs also analyzed and compared the respective equity contributions of each of ONI Systems and CIENA to the combined company's projected high and low revenue and gross profit for each calendar year 2002 and 2003, meaning the percentage of the combined entity's revenue and gross profit represented by each company net of the effect of debt, based on ONI Systems' management estimates dated February 13, 2002. Goldman Sachs also analyzed and compared the equity contributions of each of ONI Systems and CIENA to the combined company's fully diluted equity value, meaning the total number of shares outstanding, assuming that all options are exercised, multiplied by the share price, as of February 14, 2002 and the levered contribution of each of ONI Systems and CIENA to the combined company's levered market value, meaning the fully diluted equity value less net cash. The following table presents the results of that analysis:

	Levered Contributions to Total		Equity Contributions to Total	
	% ONI Systems	% CIENA	% ONI Systems	% CIENA
Revenue				
CY2002E (high estimate)	20.5%	79.5%	23.3%	76.7%
CY2002E (low estimate)	18.2	81.8	21.8	78.2
CY2003E (high estimate)	21.1	78.9	23.6	76.4
CY2003E (low estimate)	22.6	77.4	24.6	75.4
Gross Profit				
CY2002E (high estimate)	22.6%	77.4%	24.6%	75.4%
CY2002E (low estimate)	25.4	74.6	26.5	73.5
CY2003E (high estimate)	20.0	80.0	23.0	77.0
CY2003E (low estimate)	22.7	77.3	24.7	75.3
Fully Diluted Equity Value			20.7	79.3
Levered Market Value	16.4	83.6		

The foregoing table indicates that, as a result of the analyses described above, the projected percentage of levered contribution of ONI Systems to the combined company's revenue was calculated to be between 18.2% and 20.5% for calendar year 2002 and between 21.1% and 22.6% for calendar year 2003. The projected percentage of equity contribution of ONI Systems to the combined company's revenue was calculated to be between 21.8% and 23.3% for calendar year 2002 and between 23.6% and 24.6% for calendar year 2003. The projected percentage of levered contribution of ONI Systems to the combined company's gross profit was calculated to be between 22.6% and 25.4% for calendar year 2002 and between 20.0% and 22.7% for calendar year 2003. The projected percentage of equity contribution of ONI Systems to the combined company's gross profit was calculated to be between 24.6% and 26.5% for calendar year 2002 and between 23.0% and 24.7% for calendar year 2003. The projected equity contribution of ONI Systems to the combined company's fully diluted equity value was calculated to be 20.7% and the projected levered contribution to the combined company's levered market value was calculated to be 16.4%.

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In connection with its March 18, 2002 opinion, Goldman Sachs similarly reviewed the estimated future operating and financial information, including, among other things, revenue, gross profit, operating income and net income, for ONI Systems, CIENA and the pro forma combined entity resulting from the merger based on ONI Systems' management projections. Goldman Sachs analyzed the levered and equity contributions of ONI Systems to the combined company's projected high and low revenue and gross profit for each calendar year 2002 and 2003, based on ONI Systems' revised management estimates dated March 15, 2002 and based on 333.3 million fully diluted CIENA shares outstanding. Goldman Sachs also analyzed and compared the equity contribution of ONI Systems to the combined company's fully diluted equity value as of March 15, 2002 and the levered contribution of ONI Systems to the combined company's levered market value. Goldman Sachs performed two such analyses, first assuming no cash burn and second assuming estimated annual cash burn (i) for ONI Systems of \$272 million and (ii) for CIENA of \$222 million, based on ONI Systems' management projections. The following table presents the results from the analyses:

	% ONI Levered Contribution to Total	% ONI Equity Contribution to Total	
		No Cash Burn	With Cash Burn
Revenue			
CY2002E (high estimate)	22.6%	24.0%	19.8%
CY2002E (low estimate)	21.7	23.5	19.1
CY2003E (high estimate)	24.4	25.2	21.2
CY2003E (low estimate)	23.1	24.3	20.2
Gross Profit			
CY2002E (high estimate)	23.1%	24.3%	20.2%
CY2002E (low estimate)	25.7	26.0	22.2
CY2003E (high estimate)	24.4	25.2	21.2
CY2003E (low estimate)	24.2	25.0	21.0
Fully Diluted Equity Value (with cash burn)			23.6
Levered Market Value (no cash burn)	21.9		
Levered Market Value (with cash burn)	27.4		

As the foregoing table indicates, as a result of the analysis described above, the projected percentage of levered contribution of ONI Systems to the combined company's revenue was calculated to be between 21.7% and 22.6% for calendar year 2002 and between 23.1% and 24.4% for calendar year 2003. The projected percentage of equity contribution of ONI Systems to the combined company's revenue, assuming no cash burn, was calculated to be between 23.5% and 24.0% for calendar year 2002 and between 24.3% and 25.2% for calendar year 2003. The projected percentage of equity contribution of ONI Systems to the combined company's revenue, assuming cash burn, was calculated to be between 19.1% and 19.8% for calendar year 2002 and between 20.2% and 21.2% for calendar year 2003. The projected percentage of levered contribution of ONI Systems to the combined company's gross profit was calculated to be between 23.1% and 25.7% for calendar year 2002 and between 24.2% and 24.4% for calendar year 2003. The projected percentage of equity contribution of ONI Systems to the combined company's gross profit, assuming no cash burn, was calculated to be between 24.3% and 26.0% for calendar year 2002 and between 25.0% and 25.2% for calendar year 2003. The projected percentage of equity contribution of ONI Systems to the combined company's gross profit, assuming cash burn, was calculated to be between 20.2% and 22.2% for calendar year 2002 and between 21.0% and 21.2% for calendar year 2003. The projected equity contribution of ONI Systems to the combined company's fully diluted equity value was calculated to be 21.9% and the projected levered contribution to the combined company's levered market value is 27.4%. The pro forma percentage equity ownership of the combined company to be held by ONI Systems stockholders upon completion of the merger (on a fully diluted equity basis taking into account cash burn) was calculated to be 23.6%.

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In connection with its February 17, 2002 opinion, Goldman Sachs analyzed the relative 2003 revenues, net income and net cash contribution of ONI Systems, using high and low estimates provided by ONI Systems' management, to the combined company on a pro forma basis both including and excluding any synergies that were projected to result from the transaction projections and based on ONI Systems' pro forma 24% equity ownership in the combined company. The following table presents the results from that analysis:

	ONI Systems Current		Pro Forma Combined		Pro Forma With Synergies	
	Low	High	Low	High	Low	High
Total						
Revenues	\$350	\$400	\$1550	\$1900	\$1550	\$1900
Net Income	(76)	(67)	(118)	(24)	(62)	32
Net Cash	\$379	\$379	\$1310	\$1310	\$1310	\$1310
Implied Ownership of:						
Revenues	\$350	\$400	\$ 372	\$ 456	\$ 372	\$ 456
Net Income	(76)	(67)	(28)	(6)	(15)	8
Net Cash	\$379	\$379	\$ 314	\$ 314	\$ 314	\$ 314
Net Change:						
Revenues			\$ 22	\$ 56	\$ 22	\$ 56
Net Income			48	61	61	75
Net Cash			\$ (64)	\$ (64)	\$ (64)	\$ (64)

As the foregoing table indicates, as a result of this analysis, ONI Systems' implied ownership of the revenues and net income of the combined company was calculated to be higher (using both low and high estimates provided by ONI Systems' management and both including and excluding any projected synergies) than ONI Systems' current level of revenues and net income. ONI Systems' implied ownership of the net cash of the combined company was calculated to be lower (using both low and high estimates provided by ONI Systems' management and both including and excluding any projected synergies) than its then current level of net cash.

In connection with its March 18, 2002 opinion, Goldman Sachs performed a similar analysis of the relative 2003 revenues, net income and net cash contribution, first assuming no cash burn and second assuming cash burn, of ONI Systems, using revised high and low estimates provided by ONI Systems' management, to the combined company on a pro forma basis both including and excluding any synergies that were projected to result from the transaction projections. These analyses were also based on ONI Systems' pro forma 24% equity ownership in the combined company. The following table presents the results from that analysis:

	ONI Systems Current		Pro Forma Combined		Pro Forma With Synergies	
	Low	High	Low	High	Low	High
Total						
Revenues	\$ 225	\$315	\$ 975	\$1290	\$ 975	\$1290
Net Income	(110)	(80)	(120)	(51)	(64)	5
Net Cash (no cash burn)	\$ 379	\$379	\$1428	\$1428	\$1428	\$1428
Net Cash (with cash burn)	\$ 107	\$107	\$ 934	\$ 934	\$1104	\$1104

	ONI Systems Current		Pro Forma Combined		Pro Forma With Synergies	
	Low	High	Low	High	Low	High
Implied Ownership of:						
Revenues	\$ 225	\$315	\$234	\$310	\$234	\$310
Net Income	(110)	(80)	(29)	(12)	(15)	1
Net Cash (no cash burn)	\$ 379	\$379	\$343	\$343	\$343	\$343
Net Cash (with cash burn)	\$ 107	\$107	\$224	\$224	\$265	\$265
Net Change:						
Revenues			\$ 9	\$ (5)	\$ 9	\$ (5)
Net Income			81	68	95	81
Net Cash (no cash burn)			\$ (36)	\$ (36)	\$ (36)	\$ (36)
Net Cash (with cash burn)			\$118	\$118	\$158	\$158

The foregoing table indicates that when using low estimates provided by ONI Systems' management, ONI Systems' implied ownership of the revenues of the combined company was calculated to be higher (both including and excluding any projected synergies) than ONI Systems' current level of revenues. When using high estimates provided by ONI Systems' management, ONI Systems' implied ownership of the revenues of the combined company was calculated to be lower (both including and excluding any projected synergies) than its current level of revenues. ONI Systems' implied ownership of the net income of the combined company was calculated to be higher (using both low and high estimates provided by ONI Systems' management and both including and excluding any projected synergies) than its current level of net income. When assuming no cash burn, ONI Systems' implied ownership of the net cash of the combined company was calculated to be lower (using both low and high estimates provided by ONI Systems' management and both including and excluding any projected synergies) than its current level of net cash. When assuming estimated cash burn, ONI Systems' implied ownership of the net cash of the combined company was calculated to be higher (using both low and high estimates provided by ONI Systems' management and both including and excluding any projected synergies) than its then current level of net cash.

Pro Forma Merger Analysis: In connection with its February 17, 2002 and March 18, 2002 opinions, Goldman Sachs prepared pro forma analyses of the financial impact of the merger using publicly available information and estimates provided by ONI Systems' management. For each of calendar years 2002 and 2003, Goldman Sachs compared the estimated revenue per share of ONI Systems common stock and CIENA common stock on a stand-alone basis to the estimated revenue per share of CIENA common stock on a pro forma basis for each of the low and high estimates of revenue per share projected by ONI Systems' management for each such years. In addition, for each of calendar years 2002 and 2003, Goldman Sachs compared the estimated cash EPS of ONI Systems common stock and CIENA common stock on a stand-alone basis to the estimated cash EPS of CIENA common stock on a pro forma basis for each of the low and high estimates of cash EPS projected by ONI Systems' management. In connection with its February 17, 2002 opinion, Goldman Sachs performed this analysis based on a price of \$5.35 (the per share price of ONI Systems common stock on February 14, 2002) of ONI Systems common stock and \$9.12 (the per share price of CIENA common stock on February 14, 2002) of CIENA common stock. Based on such analyses, for fiscal year 2002 and 2003, under both a low and a high estimate of revenues for the combined company, the proposed transaction would be accretive to ONI Systems stockholders on a revenue per share basis. In connection with its March 18, 2002 opinion, Goldman Sachs performed this analysis based on a price of \$6.22 (the per share price of ONI Systems common stock on March 15, 2002) of ONI Systems common stock and \$8.95 (the per share price of CIENA common stock on March 15, 2002) of CIENA common stock. Based on such analyses, for fiscal year 2002 and 2003, under both a low and high estimate of revenues for the combined company, the proposed transaction would be accretive to ONI Systems stockholders on a revenue per share basis.

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The preparation of a fairness opinion is a complex process and is not necessarily susceptible to partial analysis or summary description. Selecting portions of the analyses or of the summary set forth above, without considering the analyses as a whole, could create an incomplete view of the processes underlying Goldman Sachs' opinions. In arriving at its fairness determinations, Goldman Sachs considered the results of all such analyses and did not attribute any particular weight to any factor or analyses considered by it. Rather, Goldman Sachs made its determinations as to fairness on the basis of its experience and professional judgment after considering the results of all of its analyses. No company or transaction used in the above analyses as a comparison is directly comparable to ONI Systems or CIENA or the contemplated transaction.

The analyses were prepared solely for purposes of Goldman Sachs' providing its opinions to the ONI Systems board of directors as to the fairness from a financial point of view to the holders of the outstanding shares of ONI Systems common stock of the exchange ratio of 0.7104 shares of CIENA common stock to be received for each share of ONI Systems common stock pursuant to the merger agreement. These analyses do not purport to be appraisals or necessarily reflect the prices at which businesses or securities actually may be sold. Analyses based upon forecasts of future results are not necessarily indicative of actual future results, which may be significantly more or less favorable than suggested by such analyses. Because such analyses are inherently subject to uncertainty, being based upon numerous factors or events beyond the control of the parties or their respective advisors, none of ONI Systems, CIENA, Goldman Sachs or any other person assumes responsibility if future results are materially different from those forecast.

As described above, Goldman Sachs' opinions to the board of directors of ONI Systems was one of many factors taken into consideration by the board of directors of ONI Systems in making its determination to approve the merger agreement and recommend approval of the merger agreement to the ONI Systems' stockholders. The foregoing summary does not purport to be a complete description of the analyses performed by Goldman Sachs in connection with such opinions and is qualified by reference to the written opinions of Goldman Sachs.

Goldman Sachs, as part of its investment banking business, is continually engaged in performing financial analyses with respect to businesses and their securities in connection with mergers and acquisitions, negotiated underwritings, competitive biddings, secondary distributions of listed and unlisted securities and private placements and for estate, corporate and other purposes. Goldman Sachs is familiar with ONI Systems having provided certain investment banking services to ONI Systems from time to time, including having acted as:

- Lead manager of the initial public offering of 8,000,000 shares of ONI Systems common stock in May 2000;
- Lead manager of the follow-on offering of 8,000,000 shares of ONI Systems common stock in October 2000;
- Lead manager of the public offering of ONI Systems' 5% Convertible Subordinated Notes due in October 2005, in October 2000; and
- Financial advisor in connection with, and having participated in certain of the negotiations leading to, the merger agreement.

Goldman Sachs also has provided certain investment banking services to CIENA from time to time, including having acted as:

- Lead manager of the initial public offering of 5,000,000 shares of CIENA common stock in February 1997;
- Lead manager of the follow-on offering of 9,110,622 shares of CIENA common stock in July 1997;
- Lead manager of the public offering of 11,000,000 shares of CIENA common stock in February 2001; and

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- Lead manager of the public offering of CIENA's 3.75% Convertible Notes due in February 2008, in February 2001.

Goldman Sachs may also provide investment banking services to ONI Systems, CIENA and their respective subsidiaries in the future. ONI Systems selected Goldman Sachs as its financial advisor because it is an internationally recognized investment banking firm that has substantial experience in transactions similar to the merger.

Goldman Sachs provides a full range of financial advisory and securities services and, in the course of its normal trading activities, may from time to time effect transactions and hold positions in securities, including derivative securities, of ONI Systems or CIENA for its own account and for the accounts of customers.

Lawton Fitt, a Managing Director of Goldman Sachs International, an affiliate of Goldman Sachs, is a director of CIENA. Goldman Sachs has been informed that Ms. Fitt recused herself from deliberating and voting on any proposals presented to CIENA's board of directors in respect of the merger agreement and merger.

Pursuant to a letter agreement dated January 20, 2002, or the Goldman Sachs engagement letter, ONI Systems engaged Goldman Sachs to act as its financial advisor in connection with the merger. Pursuant to the engagement letter, ONI Systems agreed to pay Goldman Sachs 0.80% of the aggregate consideration paid by CIENA (or approximately \$ _____ as of the date of this joint proxy statement/prospectus) upon consummation of the merger. ONI Systems has agreed to reimburse Goldman Sachs, upon Goldman Sachs' request and upon consummation of the merger, for its reasonable out-of-pocket expenses, including attorneys' fees, which expenses are estimated to be approximately \$ _____ as of the date of this joint proxy statement/prospectus and to indemnify Goldman Sachs against certain liabilities, including certain liabilities under the federal securities laws.

Interests of Executive Officers and Directors in the Merger

In considering the recommendation of the ONI Systems board of directors regarding the merger, ONI Systems stockholders should be aware that some ONI Systems directors and executive officers have interests in the merger and related arrangements that are different from, or in addition to, their interests as ONI Systems stockholders. These interests may create potential conflicts of interest for these directors and officers because they may be more likely to approve the merger than ONI Systems stockholders generally. The ONI Systems board of directors was aware of these interests and took these interests into account in its deliberations of the merits of the merger and in approving the merger and the transactions contemplated by the merger agreement.

Employment and Consulting Arrangements. Hugh C. Martin, the Chairman of the Board, Chief Executive Officer and President of ONI Systems, has signed a consulting agreement with CIENA for a term of one year following the closing of the merger. Under this consulting agreement Mr. Martin will receive a consulting fee of \$23,334 per month, and the shares of CIENA common stock acquired by Mr. Martin as a result of the merger and the ONI Systems stock options issued to Mr. Martin and assumed by CIENA as a result of the merger will continue to vest during the term of the consulting agreement in accordance with the terms of the agreements under which Mr. Martin currently holds these shares and options.

William R. Cumpston, the Executive Vice President and Chief Operating Officer of ONI Systems, has signed an employment agreement with CIENA under which he agreed to serve as Senior Vice President, Metro Switching, Access and Transport of the combined company. Rohit Sharma, the Chief Technology Officer of ONI Systems, has signed an employment agreement with CIENA under which he agreed to serve as Senior Vice President and Chief Technology Officer, Metro Access and Transport of the

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combined company. Mr. Cumpston and Mr. Sharma will receive the following benefits under their respective employment agreements:

- Mr. Cumpston will receive a base salary in the amount of \$275,000 per year, and will be eligible to participate in CIENA's Incentive Bonus Plan at a rate of up to 50% of his base salary on a quarterly basis. During the first 12 months of the term of his employment agreement Mr. Cumpston will receive a guaranteed bonus in an amount such that his total compensation will be equal to at least \$350,000;
- Mr. Sharma will receive a base salary in the amount of \$250,000 per year, and will be eligible to participate in CIENA's Incentive Bonus Plan at a rate of up to 50% of his base salary on a quarterly basis. During the first 12 months of the term of his employment agreement Mr. Sharma will receive a guaranteed bonus in an amount such that his total compensation will be equal to at least \$300,000;
- both executives will be eligible to receive additional stock option grants in accordance with CIENA's standard compensation plans; and
- both executives will be eligible to participate in CIENA's executive benefits program.

Mr. Cumpston and Mr. Sharma are entitled to receive specified benefits under their employment agreements with CIENA if their employment is terminated by CIENA without cause, or by the executive for good reason, within one year after the merger or within one year after the effective date of a transfer of control of CIENA. Upon termination as set forth above, each of these executives will receive the following benefits under the agreements:

- continuation for a period of 12 months following the last day of employment of the executive's compensation equal to the executive's annual base salary immediately prior to either the date of termination or the date of the transfer of control, whichever is higher;
- compensation equal to the executive's annual bonus amount under any incentive plans or programs in which the executive participated immediately prior to either the date of termination or the date of the transfer of control, whichever annual bonus amount is higher, this bonus will be based on an assumed achievement of 100% of the targeted performance for the award and will be payable in quarterly installments;
- continuation of the executive's participation in group medical, dental, life and disability plans on substantially the same basis as if the executive were an employee until the earlier of the anniversary of the date of termination or the last day of the month in which the executive begins employment with another employer, CIENA will also pay the executive at least annually an amount sufficient on an after tax basis to compensate the executive for all additional taxes incurred because of any income realized as a result of continued coverage to the extent the taxes would not be incurred if the executive was an employee of CIENA;
- CIENA will continue to maintain director and officer insurance covering the executive, and will maintain in effect any indemnification agreements providing for indemnification of the executive by CIENA, until the applicable statute of limitations has ended;
- if the executive is terminated within 12 months after the merger, the vesting of the executive's options will continue for the same period during which the executive is receiving his salary, and the exercise period for the executive's unexercised and exercisable options will be extended for thirty days after the end of the salary continuation period;
- if the executive is terminated following a transfer of control, the executive's options will become vested and exercisable upon the transfer of control to the extent provided for under the terms of the plan, program or arrangement under which the options were granted, vesting of the executive's options will continue during the salary continuation period, and the exercise period for the

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executive's unexercised and exercisable options will be extended for 30 days after the end of the salary continuation period; and

- if it is determined that any payment or distribution by CIENA to or for the benefit of the executive paid, payable or distributed under the terms of the agreement or otherwise, would be subject to the excise tax imposed by Section 4999 of the Internal Revenue Code or any interest or penalties are incurred by the executive with respect to the excise tax, then CIENA will pay the executive an additional amount equal to the excise tax imposed.

Each executive agreed not to compete with CIENA for a period of one year following termination of his employment. However, under Mr. Sharma's employment agreement the non-competition provision will not apply, if, on or after the first anniversary of the date that the merger is completed, Mr. Sharma's employment is terminated except in connection with a transfer of control of CIENA. If, on or after the first anniversary of the date that the merger is completed, Mr. Sharma is terminated by CIENA without cause or by Mr. Sharma with good reason, in either event within one year of the effective date of a transfer of control of CIENA, and Mr. Sharma elects to forego various benefits to which he would otherwise be entitled, the non-competition provision will not apply.

Stock Ownership. As of May , 2002, the directors and executive officers of ONI Systems beneficially owned shares, including stock options and warrants exercisable within 60 days of that date, representing approximately % of the outstanding shares of ONI Systems. These shares would represent approximately % of the outstanding shares of CIENA after completion of the merger, based on shares outstanding on May , 2002.

Assumption of Stock Options. Each outstanding option to purchase ONI Systems common stock, including any stock option held by any director or executive officer of ONI Systems, will be assumed by CIENA at the effective time of the merger. Each option will become an option to acquire common stock of the combined company after the merger, the number of shares subject to the option and the option exercise price will be equitably adjusted according to the 0.7104 exchange ratio.

Acceleration of ONI Systems Stock Options. The ONI Systems stock options held by members of the ONI Systems board of directors that were granted under the ONI Systems 2000 Equity Incentive Plan will accelerate in connection with the merger and become 100% vested and exercisable in full. The ONI Systems options held by Robert J. Jandro and Michael A. Dillon, both of whom are executive officers of ONI Systems, will accelerate in connection with the merger so that 25% of the unvested shares subject to these options will become vested. In addition, some other employees of ONI Systems have stock options with acceleration of vesting in connection with the merger.

The following tables present specific information regarding stock option acceleration for ONI Systems' executive officers and directors. Only options granted to directors under the ONI Systems 2000 Equity Incentive Plan accelerate. Some directors have options granted under other plans that are not reflected in this table. Monetary value is calculated by subtracting the exercise price due upon exercise of the option from the value of the shares received, based on the closing price on the date indicated. Out of the money options are shown as having a monetary value of \$0.

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The table immediately below assumes that the merger was effective as of February 17, 2002 and uses the closing price on February 15, 2002 for all monetary value calculations. The closing price of ONI Systems common stock on February 15, 2002 was \$5.54.

Name	Unvested Options Immediately Prior to Effective Time of Merger	Unvested Options Accelerated	Monetary Value of Accelerated Options as of February 17, 2002	Exercise Price of Accelerated Options
Directors				
Matthew W. Bross	40,000	40,000	\$ 0	\$34.85
Kevin R. Compton	46,667	46,667	\$ 0	\$82.56
	40,000	40,000	\$ 0	\$34.85
Jonathan D. Feiber	46,667	46,667	\$ 0	\$82.56
	40,000	40,000	\$ 0	\$34.85
James F. Jordan	40,000	40,000	\$ 0	\$34.85
Gregory B. Maffei	40,000	40,000	\$ 0	\$34.85
Executive Officers				
Michael A. Dillon	125,000	31,250	\$578,750	\$ 0.91
	35,000	8,750	\$150,150	\$ 1.25
	8,155	2,039	\$ 0	\$10.00
	19,969	4,992	\$ 0	\$10.00
	1,042	261	\$ 0	\$49.31
	36,458	9,114	\$ 0	\$49.31
Robert J. Jandro	13,951	3,488	\$ 32,646	\$ 3.20
	387,835	96,959	\$907,534	\$ 3.20
	3,765	941	\$ 0	\$49.31
	71,235	17,809	\$ 0	\$49.31

The table immediately below assumes that the merger was effective as of April 24, 2002 and uses the closing price on April 24, 2002 for all monetary value calculations. The closing price of ONI Systems common stock on April 24, 2002 was \$5.37.

Name	Unvested Options Immediately Prior to Effective Time of Merger	Unvested Options Accelerated	Monetary Value of Accelerated Options as of April 24, 2002	Exercise Price of Accelerated Options
Directors				
Matthew W. Bross	40,000	40,000	\$ 0	\$34.85
Kevin R. Compton	43,333	43,333	\$ 0	\$82.56
	40,000	40,000	\$ 0	\$34.85
Jonathan D. Feiber	43,333	43,333	\$ 0	\$82.56
	40,000	40,000	\$ 0	\$34.85
James F. Jordan	40,000	40,000	\$ 0	\$34.85
Gregory B. Maffei	40,000	40,000	\$ 0	\$34.85

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Name	Unvested Options Immediately Prior to Effective Time of Merger	Unvested Options Accelerated	Monetary Value of Accelerated Options as of April 24, 2002	Exercise Price of Accelerated Options
Executive Officers				
Michael A. Dillon	112,500	28,125	\$501,750	\$ 0.91
	32,083	8,021	\$132,182	\$ 1.25
	7,991	1,998	\$ 0	\$10.00
	18,050	4,513	\$ 0	\$10.00
	1,042	260	\$ 0	\$49.31
Robert J. Jandro	34,548	8,637	\$ 0	\$49.31
	12,835	3,209	\$ 27,852	\$ 3.20
	356,808	89,202	\$774,273	\$ 3.20
	3,755	939	\$ 0	\$49.31
	67,425	16,856	\$ 0	\$49.31

Parachute Payments. For certain employees of ONI Systems the acceleration of the vesting of options upon completion of the merger or subsequent termination of employment may, together with any severance payments, result in “excess parachute payments” as defined in Section 280G of the Internal Revenue Code. Excess parachute payments are not deductible in accordance with Section 280G. As a result, CIENA will not be entitled to a tax deduction for the amount determined to be excess parachute payments.

Indemnification. The merger agreement provides that, upon the completion of the merger, CIENA for a period of six years will fulfill the obligations of ONI Systems to indemnify and hold harmless each person who is or was a director or officer of ONI Systems against any losses incurred based upon matters existing or occurring prior to the completion of the merger to the same extent that these persons were indemnified pursuant to ONI Systems’ certificate of incorporation, bylaws or any indemnification agreement immediately prior to the merger. In addition, CIENA will cause the combined company to use commercially reasonable efforts to maintain in effect, if available, directors’ and officers’ liability insurance covering the individuals who are currently covered by ONI Systems’ directors’ and officers’ insurance, on terms that are comparable to those currently applicable to ONI Systems directors and officers, provided that CIENA will not be required to pay annual premiums for such individuals in excess of 200% of the last annual premium paid by ONI Systems for directors’ and officers’ liability insurance prior to the date of the merger, but will at least maintain the level of coverage that can be purchased for that amount.

Stockholder Agreements. The following ONI Systems directors and officers have entered into stockholder agreements pursuant to which they have agreed to vote shares of ONI Systems common stock over which they exercise voting control in favor of the adoption of the merger agreement and the merger:

- Hugh C. Martin, Chairman, President and Chief Executive Officer;
- George Reyes, Interim Chief Financial Officer;
- William R. Cumpston, Executive Vice President and Chief Operating Officer;
- Michael A. Dillon, Vice President, General Counsel and Secretary;
- Robert J. Jandro, Executive Vice President, Global Sales and Services;
- Rohit Sharma, Founder and Chief Technology Officer;
- Matthew W. Bross, Director;
- Kevin Compton, Director;
- Jonathan D. Feiber, Director;
- James F. Jordan, Director; and
- Gregory B. Maffei, Director.

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The total number of shares of ONI Systems common stock covered by these agreements is _____, which represents approximately _____ % of ONI Systems' outstanding common stock as of _____, 2002.

Loan Agreements ONI Systems made loans to some of its officers and directors, evidenced by promissory notes, which were used to purchase ONI Systems restricted stock and early exercisable options. The promissory notes provide that upon an officer or director's termination of employment, the company has the right to immediately accelerate the notes. The loans are secured by the stock purchased. The following presents specific information regarding outstanding loans to ONI Systems' executive officers and directors.

Name	Date of Promissory Note	Principal Amount of Note	Interest Rate	Due Date	Balance as of 3/1/02
Michael A. Dillon	12/8/99	\$ 18,200	6.20%	12/8/04	\$ 20,716
Michael A. Dillion	2/14/00	\$ 87,500	6.56%	2/14/05	\$ 81,690
Hugh C. Martin	12/21/99	\$1,519,793	6.20%	12/21/04	\$1,726,576
Robert J. Jandro	3/1/00	\$2,880,000	6.80%	3/1/05	\$2,451,164

Accounting Treatment

The merger will 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 ONI Systems assets acquired and the ONI Systems liabilities assumed to the extent of their fair market value, with any excess purchase price being allocated to goodwill.

Listing on the Nasdaq Stock Market

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

Governmental and Regulatory Approvals

The Hart-Scott-Rodino Act and its related rules and regulations prohibit ONI Systems and CIENA from completing the merger until CIENA and ONI Systems each 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 made its Hart-Scott-Rodino filing with the Antitrust Division of the Department of Justice and the Federal Trade Commission on March 7, 2002. ONI Systems made its Hart-Scott-Rodino filing with the Antitrust Division of the Department of Justice and the Federal Trade Commission on March 18, 2002. On April 17, 2002, the Federal Trade Commission granted early termination of the antitrust waiting period. The merger also may be subject to review by the governmental authorities of various other jurisdictions under the antitrust laws of those jurisdictions.

Federal Income Tax Consequences

The following discussion describes the material federal income tax consequences of the exchange of shares of ONI Systems common stock for CIENA common stock pursuant to the merger that are generally applicable to holders of ONI Systems common 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 ONI Systems stockholders as described herein.

ONI Systems stockholders should be aware that this discussion does not deal with all federal income tax considerations that may be relevant to particular ONI Systems stockholders in light of their particular

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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 ONI Systems common 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 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 ONI Systems common stock are acquired or shares of CIENA common stock are disposed of, or the tax consequences of the assumption by CIENA of the ONI Systems employee options or the tax consequences of any receipt of rights to acquire CIENA common stock.

Accordingly, ONI Systems 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.

Subject to the limitations and qualifications discussed in such opinions, in the opinion of Hogan & Hartson L.L.P., counsel to CIENA, and Fenwick & West LLP, counsel to ONI Systems, the merger will be treated for federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Code and the merger will result in the following federal income tax consequences to ONI Systems stockholders if the merger is completed under the current terms of the merger agreement:

- No gain or loss will be recognized by holders of ONI Systems common stock solely upon their receipt of CIENA common stock in exchange for ONI Systems common stock in the merger.
- The aggregate tax basis of the CIENA common stock received by ONI Systems stockholders in the merger (including any fractional share interest in CIENA common stock) will be the same as the aggregate tax basis of the ONI Systems common stock surrendered in exchange therefor.
- The holding period of the CIENA common stock received by ONI Systems stockholders in the merger will include the period for which the ONI Systems common stock surrendered in exchange therefor was considered to be held, provided that the ONI Systems common stock so surrendered is held as a capital asset at the time of the merger.
- Any cash payment received by a holder of ONI Systems common 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. An ONI Systems 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. The gain or loss will be capital gain provided that the shares of ONI Systems common stock were held as capital assets and will be long term capital gain or loss if the ONI Systems common stock had been held for more than one year at the time of the merger. However, if the receipt of cash instead of fractional shares is essentially equivalent to a dividend (determined by application of Section 302 of the Code on a stockholder by stockholder basis), some or all of this gain may be treated as a dividend and taxed as ordinary income.

Opinions of counsel are based on certain representations as to factual matters made by, among others, CIENA and ONI Systems. Such representations, if incorrect, could jeopardize the conclusions reached in the opinions. Neither CIENA nor ONI Systems is currently aware of any facts or circumstances which would cause any such representations made to counsel to be untrue or incorrect in any material respect. Any opinion of counsel is not binding on the Internal Revenue Service or the courts. The parties have not and will not request a ruling from the Internal Revenue Service as to the tax consequences of the merger.

A successful Internal Revenue Service challenge to the reorganization status of the merger would result in ONI Systems stockholders recognizing taxable gain or loss with respect to each share of ONI Systems common 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

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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.

Federal Backup Withholding

A holder of ONI Systems common stock may be subject, under some circumstances, to backup withholding at a rate of 30% with respect to the amount of cash, if any, received in lieu of a fraction of a share of CIENA common stock in the merger unless the holder provides proof of an applicable exemption or a correct taxpayer identification number, and otherwise complies with applicable requirements of the backup withholding rules. Any amounts withheld under the backup withholding rules are not an additional tax and may be refunded or credited against the holder's U.S. federal income tax liability, provided the required information is furnished to the Internal Revenue Service.

ONI Systems' 5% Convertible Subordinated Notes Due October 15, 2005

CIENA will execute a supplemental indenture that provides for the conversion of the ONI Systems \$300,000,000 aggregate principal amount 5% convertible subordinated notes into 5% convertible subordinated notes of CIENA, convertible into CIENA common stock. Upon consummation of the merger, the notes will become debt obligations of CIENA, immediately convertible into approximately 7.7525 shares of CIENA common stock for each \$1,000 in principal amount held, subject to adjustment.

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 Annex A to this joint proxy statement/prospectus and is incorporated herein by reference. All stockholders are urged to read the merger agreement carefully.

General

The merger agreement provides that ONI Systems will be merged with and into CIENA, at the effective time of the merger. Pursuant to the merger agreement, ONI Systems will cease to exist and CIENA will be the surviving corporation. At the effective time of the merger, each outstanding share of ONI Systems common stock will be converted into CIENA common stock, all as more fully described below.

This section of the joint proxy statement/prospectus 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, ONI Systems will merge with and into CIENA. ONI Systems will then cease to exist, and CIENA will continue as the surviving company. The certificate of incorporation of CIENA will be the certificate of incorporation of the surviving corporation. The bylaws of CIENA will be the bylaws of the surviving corporation and the board of directors and the officers of CIENA will remain the board of directors and officers of the surviving corporation.

Management and Operations After the Merger

Following the merger, CIENA will integrate all of ONI Systems' operations into its own. All of the officers and directors of CIENA before the merger will remain officers and directors of CIENA after the merger. The stockholders of ONI Systems will become stockholders of CIENA, and their rights as stockholders will be governed by CIENA's articles of incorporation and bylaws, each as currently in effect, and the laws of the State of Delaware.

Treatment of Stock, Options and Warrants

At the effective time of the merger, each issued and outstanding share of ONI Systems common stock, other than shares held in the treasury of ONI Systems, by CIENA or by any direct or indirect wholly owned subsidiary of ONI Systems or CIENA, will be converted into 0.7104 shares of CIENA common stock. Each share of CIENA common stock issued in the merger will include the corresponding fraction of a right to purchase shares of junior preferred stock, par value \$0.01 per share, pursuant to the Rights Agreement dated as of December 29, 1997 between CIENA and Equiserve Trust Co., N.A. (formerly BankBoston, N.A.) as Rights Agent, as amended. If there is a change in the number of shares of CIENA common stock outstanding, under certain circumstances the exchange ratio will be adjusted.

Each share of ONI Systems common stock held in the treasury of ONI Systems, by CIENA or by any direct or indirect wholly owned subsidiary of ONI Systems or of CIENA will be canceled and extinguished at the effective time of the merger without the payment of any consideration.

CIENA will assume each option or warrant to acquire ONI Systems common stock granted under ONI Systems' stock plan or otherwise issued by ONI Systems 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 ONI Systems common stock subject to the ONI Systems stock option or

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warrant, assuming full vesting, multiplied by 0.7104 (and rounding any fractional share down to the nearest whole share) and the exercise price per share of CIENA common stock will be equal to the aggregate exercise price per share of ONI common stock subject to the ONI Systems stock option or warrant divided by 0.7104. The duration and other terms of each such CIENA option or warrant, including the vesting schedule, will be the same as the prior ONI Systems stock option or warrant.

CIENA has agreed under the terms of the merger agreement to assume ONI Systems' commitment to issue options to certain employees in accordance with the terms of ONI Systems' offer to exchange dated October 19, 2001. Accordingly, if the merger were to close before the replacement option grant date, which is expected to be on May 20, 2002, CIENA would issue the replacement options, and the number of shares subject to the replacement options would be determined by multiplying the number of shares of ONI Systems common stock that would have been covered by each option by 0.7104. The exercise price of the replacement options would be the fair market value of CIENA's common stock on the grant date. If the merger closes after the replacement option grant date, which is the expected case, ONI Systems will issue the replacement options, which will then be converted to CIENA options at the exchange ratio following the closing of the merger. In addition to the foregoing, CIENA has assumed ONI Systems' commitment to issue options to certain overseas employees of ONI Systems who were not eligible to participate in the Offer to Exchange. Options to purchase up to 5,159,535 shares of CIENA common stock may be issued under the offer to exchange and options to purchase up to 386,330 shares of CIENA common stock may be issued to employees of ONI Systems based overseas.

CIENA has agreed under the terms of the merger agreement to assume ONI Systems' employee stock purchase plan and the related commitment to issue and sell shares under the plan. Each assumed purchase right shall continue to have, and be subject to, the terms and conditions set forth in the employee stock purchase plan except that the number of shares of CIENA common stock issuable upon exercise thereof will equal the number of shares of ONI Systems common stock otherwise issuable multiplied by 0.7104 and the purchase price of the CIENA common stock on the purchase date thereof will be the lower of:

- 85% of the fair market value per share of ONI Systems common stock on the offering date under the plan for the purchase period divided by 0.7104; and
- 85% of the fair market value per share of CIENA common stock on the applicable purchase date.

Exchange of Certificates; Fractional Shares

CIENA has agreed to deposit with a bank or trust company designated as exchange agent by CIENA for the benefit of the holders of issued and outstanding shares of ONI Systems common stock, certificates representing the shares of CIENA common stock to be issued pursuant to 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 record of ONI Systems 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 ONI Systems 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 ONI Systems stock has been converted. When they surrender such 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.

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CIENA will not issue any fractional shares. Instead, each ONI Systems' 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 Nasdaq of CIENA common stock on the closing date (or, if the CIENA common stock is not trading on Nasdaq on that date, the first day of trading in CIENA common stock on Nasdaq 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 ONI Systems common stock must thereafter be surrendered for exchange to CIENA. Neither CIENA, ONI Systems, 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 ONI Systems 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 such 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 such certificate.

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

Effective Time

The merger will occur after specified 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 these conditions, 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 such filing. CIENA and ONI Systems each anticipate that, if the merger is approved at the special meetings, it will be consummated during the second or third calendar quarter of 2002.

Representations and Warranties

The merger agreement contains various representations of CIENA and ONI Systems. CIENA and ONI Systems make customary representations and warranties to each other relating to, among other things:

- the corporate organization and existence of each company, 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 or other organizational documents of each company;
- the capitalization of each company, 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 each company to execute and deliver the merger agreement and related documents and to consummate the transactions contemplated thereby;
- the compliance of the merger agreement and related documents with (1) each company's certificate of incorporation and bylaws and the certificate or articles of incorporation and bylaws of

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each company's subsidiaries, (2) applicable laws, and (3) certain material agreements of each company, including the absence of events of default thereunder;

- the required governmental and third-party consents;
- the possession and validity of all required licenses, the filing of required regulatory reports and compliance with applicable laws by each company;
- each company's financial statements, including that the information in the financial statements is a fair presentation of the financial condition and results of operations of each company and is in compliance with GAAP;
- the absence of material undisclosed liabilities;
- the absence of certain changes in ONI Systems' business since December 31, 2000 and in CIENA's business since October 31, 2001;
- the absence of material legal proceedings, injunctions and disputes;
- the validity of and absence of defaults under certain debt instruments, leases and other agreements of each company;
- compliance with laws relating to employees or the workplace, and the absence of material disputes with employees;
- the filing and accuracy of each company's tax returns;
- the absence of certain business practices of each company;
- knowledge regarding customer and supplier relationships;
- the ownership and condition of the assets owned by each company;
- complete and correct books and records;
- the absence of intellectual property infringement or contests;
- the absence of brokers or finders other than Goldman Sachs and Morgan Stanley;
- the treatment of the merger as a reorganization under Section 368(a) of the Internal Revenue Code;
- compliance with environmental laws and the absence of environmental liabilities; and
- true and complete copies of all documents.

ONI Systems makes additional representations and warranties to CIENA regarding:

- its employee benefit plans and related matters, including that the plans have been operated and administered in accordance with applicable laws;
- insurance;
- related party transactions; and
- the inapplicability of state anti-takeover statutes to the merger.

CIENA makes an additional representation to ONI Systems that the shares of CIENA common stock to be issued in the merger will be duly and validly issued, fully paid and non-assessable.

Business of ONI Systems and CIENA Pending the Merger; Other Agreements

Pursuant to the merger agreement, ONI Systems and CIENA have each agreed to maintain its business in the ordinary course consistent with past practice. From the date of signing of the merger agreement until closing, each company will:

- maintain its existence in good standing;
- 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 the merger agreement;
- maintain business and accounting records consistent with past practices; and
- use its best efforts (1) to preserve its business intact, (2) to keep available to it the services of its present officers and employees, and (3) to preserve for it the goodwill of its suppliers, customers and others having business relations with it.

Interim Operations of ONI Systems:

Unless CIENA otherwise approves, ONI Systems and its subsidiaries may not:

- amend or otherwise change its certificate of incorporation or bylaws;
- issue any stock or grant any options with certain exceptions 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, except for repurchases from terminated employees;
- 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 certain exceptions;
- 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;
- enter into any contract or agreement other than in the ordinary course of business, consistent with past practice;
- authorize any capital commitment or capital lease which is in excess of \$100,000 or capital expenditures which are, in the aggregate, in excess of \$100,000 or are not included on ONI Systems' capital budget for 2002;
- mortgage, pledge or subject to encumbrance any of its material assets or properties, or agree to do so, other than in the ordinary course of business;
- 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 offer letters or letter agreements 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 ONI Systems, 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 for reasonable salary increases in connection

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with customary officer and employee performance review process, customary bonuses consistent with past practices, and amendments to existing employee benefit plans as necessary to maintain compliance with applicable laws;

- 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 except as required by GAAP;
- 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 material 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 practice, 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 practice;
- 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;
- initiate any litigation against a third party;
- adopt any stockholder rights or similar plans; or
- agree to do any of the foregoing.

Interim Operations of CIENA:

Unless ONI Systems otherwise approves, CIENA may not:

- 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;
- redeem, purchase or otherwise acquire any of its capital stock;
- 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 for a purchase price having a value in excess of 34 million shares of CIENA common stock;
- amend or otherwise change its certificate of incorporation or bylaws; or
- agree to do any of the foregoing.

No Solicitation by ONI Systems

Pursuant to the merger agreement, ONI Systems 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 ONI Systems 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.

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The merger agreement does not preclude ONI Systems 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 ONI Systems determines in good faith, after receiving the advice of its financial advisor and outside legal counsel, that the acquisition proposal, if accepted, is reasonably likely to be consummated;
- the board of directors of ONI Systems determines in good faith, after receiving the advice of its financial advisor, that the acquisition proposal would, if consummated, result in a transaction that is more favorable to the ONI Systems 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 ONI Systems determines in good faith, after receiving advice of its outside legal counsel, that taking such action is required or necessary in order to fulfill its fiduciary duties under applicable law.

ONI Systems must promptly advise 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 ONI Systems or any proposal or offer to acquire in any manner, directly or indirectly, 10% or more of the equity securities, voting securities, or assets of ONI Systems.

The merger agreement provides that the ONI Systems 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 it provides CIENA with three business days' prior notice, it has otherwise complied in all respects with its obligations under the merger agreement, and after receiving the advice of its outside legal counsel, the ONI Systems board of directors determines in good faith that it is required to withdraw, amend or modify its recommendation in order to satisfy its fiduciary duties to ONI Systems' stockholders under applicable law.

Additional Agreements of CIENA and ONI Systems

Pursuant to the merger agreement, CIENA and ONI Systems 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, CIENA and ONI Systems will take all action necessary to convene a meeting or meetings of the holders of CIENA and ONI Systems stock, as appropriate, to be held as promptly as practicable after the S-4 registration statement is declared effective.

Subject to the fiduciary duty exceptions described below, each board of directors:

- will recommend approval by its stockholders;
- will not withdraw or modify its recommendation; and
- will take all lawful action to solicit stockholder approval as promptly as possible.

Each board of directors may withdraw, amend, modify or qualify in a manner adverse to the other its recommendation upon three business days notice, by following the procedures described above in the last paragraph of “— No Solicitation by ONI Systems.”

Directors' and Officers' Insurance and Indemnification

CIENA has agreed to fulfill and honor in all respects the indemnification agreements ONI Systems has previously entered into with its officers and directors and to fulfill and honor any indemnification provisions of ONI Systems' charter documents. The merger agreement provides that all rights to indemnification for present and former officers and directors of ONI Systems will survive the merger and

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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.

Conditions Precedent to Each Party's Obligation to Effect the Merger

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

- All applicable waiting periods under the Hart-Scott-Rodino Act and any foreign competition laws, where a filing and waiting period are required, have expired or been terminated;
- CIENA and ONI Systems have obtained all authorizations, consents, orders, declarations or approvals of, or filings with, any governmental authority required in connection with the merger, 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 a material adverse effect on ONI Systems, assuming the merger had taken place;
- No governmental entity enacts, issues, promulgates, enforces or enters any statute, rule, regulation, judgment, decree, injunction or other order which is in effect and which makes the merger illegal or otherwise prohibits consummation of the merger;
- The S-4 Registration Statement must have become effective under the Securities Act, and there must be no stop order or threat of proceedings by the SEC to suspend the effectiveness of the S-4; and
- Holders of CIENA common stock and ONI Systems common stock must approve the merger.

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:

- ONI Systems must have performed and complied in all material respects with all agreements and conditions to be performed prior to or on the closing date;
- Each of ONI Systems' representations and warranties in the merger agreement must be true and correct as of the closing, except for changes permitted by the merger agreement or where the failure to be true and correct would not have or be reasonably likely to result in a material adverse effect on ONI Systems;
- No event, occurrence, development or change shall have occurred that has or is reasonably likely to have a material adverse effect on ONI Systems;
- Certain individuals shall have executed affiliate letters and/or stockholder agreements;
- ONI Systems must have received certain specified consents or waivers, in form and substance satisfactory to CIENA, from the other parties to certain contracts, leases or agreements to which ONI Systems is a party; and
- CIENA must have received the opinion of Hogan & Hartson L.L.P., counsel to CIENA, dated as of the closing date, confirming that the merger will qualify as a reorganization under Section 368(a) of the Internal Revenue Code.

Conditions Precedent to ONI Systems' Obligations

ONI Systems' 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 to be performed prior to or on the closing date;

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- Each of CIENA's representations and warranties in the merger agreement must be true and correct in all material respects as of the closing date, except for changes permitted by the merger agreement or where the failure to be true and correct would not have or be reasonably likely to result in a material adverse effect on CIENA;
- No event, occurrence, development or change shall have occurred that has or is reasonably likely to have a material adverse effect on CIENA; and
- ONI Systems must have received the opinion of Fenwick & West, LLP, counsel to ONI Systems, dated as of the closing date, confirming that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code.

The term "material adverse effect," as defined in the merger agreement with respect to CIENA and ONI Systems, means a material adverse effect on the business, financial condition, assets, liabilities or results of operations of either company and its subsidiaries, with certain exceptions, including:

- any failure to meet analysts' published revenue or earnings predictions for any period ending on or after the date of the merger agreement;
- any adverse change, effect, event, occurrence, state of facts or development attributable to conditions affecting generally the industry in which CIENA or ONI Systems participates, the US economy as a whole or foreign economies in any locations where CIENA or ONI Systems have material operations, sales, or customers, except an adverse change, effect, event, occurrence, state of facts or development that has a materially disproportionate impact on the affected party; and
- any adverse change resulting from the announcement or pendency of the merger.

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 written agreement of the boards of directors of CIENA and ONI Systems;
- by CIENA or ONI Systems if:
 - * the closing date has not occurred by September 30, 2002; provided that the 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;
 - * the approval of CIENA's and ONI Systems' stockholders, as required by the merger agreement, has not been obtained at a meeting convened for that purpose; or
 - * any court of competent jurisdiction in the United States or other United States governmental authority issues an order or takes any other final and non-appealable action restraining, enjoining or otherwise prohibiting the merger.
- by ONI Systems if:
 - * ONI Systems' board of directors authorizes ONI Systems, subject to complying with the merger agreement, to enter into a binding written agreement concerning a superior proposal and CIENA does not make, within five business days of receipt of notification of ONI Systems' intent, an offer that the ONI Systems board of directors determines in good faith, after consultation with its outside legal counsel and its financial advisors, is at least as favorable as the superior proposal, taking into account the strategic benefit and long-term value to stockholders of the revised merger consideration and the strategic nature of the proposed merger with CIENA, as applicable;

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- * CIENA or its board of directors shall have withdrawn, modified or amended in any respect adverse to ONI Systems its recommendation in favor of the merger or failed to reconfirm its recommendation within 5 business days of a written request of ONI Systems to do so;
- * CIENA shall have failed to mail the joint proxy statement/prospectus to its stockholders as promptly as possible or failed to include the CIENA board of directors recommendation in the joint proxy statement/ prospectus;
- * CIENA shall have taken specified steps toward the approval or consummation of any acquisition proposal, as a result of which CIENA would be acquired by any third party, or any offer whereby a third party would acquire 10% or more of CIENA's securities or assets, or CIENA shall have failed to recommend rejection of a tender or exchange offer that is conditioned on termination of the merger with ONI Systems; or
- * CIENA materially breaches any representation, warranty, covenant or agreement in the merger agreement, and fails to cure the breach thirty days after receiving written notice of it, if the effect of the breach would be or would be likely to result in a material adverse effect on CIENA.

• by CIENA if

- * ONI Systems' board of directors has withdrawn, modified or amended in any respect adverse to CIENA its recommendation in favor of the merger or failed to reconfirm its recommendation within 5 business days of a written request of CIENA to do so;
- * ONI Systems has approved, publicly recommended or entered into an agreement with respect to, or consummated, or adopted a resolution to approve, publicly recommend, enter into an agreement with respect to, or consummate any acquisition proposal from a person other than CIENA or any of its affiliates;
- * ONI Systems fails to recommend rejection of a tender or exchange offer made by a third party;
- * ONI Systems shall have failed to mail the joint proxy statement/ prospectus to its stockholders as promptly as possible or failed to include the ONI Systems board of directors' recommendation in the joint proxy statement/prospectus; or
- * ONI Systems materially breaches any representation, warranty, covenant or agreement in the merger agreement, and fails to cure the breach thirty days after receiving notice of it, if the effect of the breach would be or would be likely to result in a material adverse effect on ONI Systems.

If the merger agreement is terminated by ONI Systems due to a superior proposal, or by CIENA because ONI Systems' board of directors withdraws, amends or modifies its recommendation in favor of the merger, because ONI Systems fails to mail the joint proxy statement/ prospectus to its stockholders as promptly as possible or fails to include the board of directors' recommendation in the joint proxy statement/ prospectus, because ONI Systems approves an acquisition proposal from a person other than CIENA or because ONI Systems fails to recommend rejection of a tender offer by a person other than CIENA, then ONI Systems must pay CIENA a termination fee of \$36.7 million, as well as reimbursement of up to \$2 million for expenses incurred in the merger negotiation. However, except as described in the next sentence, ONI Systems 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 ONI Systems' board of directors' 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. ONI Systems will also be required to pay the \$36.7 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

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CIENA in the event of a change in the ONI Systems board of directors' recommendation for reasons relating to a material adverse effect on CIENA, if:

- at the time of ONI Systems' stockholders meeting to vote on the merger or the change in the board of directors' recommendation, as applicable, any person shall have made an acquisition proposal to ONI Systems or any of its stockholders that is then publicly known or shall have publicly announced an intention to make an acquisition proposal with respect to ONI Systems; and
- ONI Systems enters into an agreement concerning a transaction that constitutes an acquisition proposal within 12 months of termination of the merger agreement.

In the event of termination of the merger agreement by ONI Systems because CIENA's board of directors withdraws, amends or modifies its recommendation in favor of the merger, because CIENA fails to mail the joint proxy statement/prospectus to its stockholders as promptly as possible or fails to include the board of directors' recommendation in the joint proxy statement/prospectus, because CIENA takes specified steps toward the approval or consummation of any acquisition proposal as a result of which CIENA would be acquired by any third party, or a third party will acquire 10% or more of CIENA's securities or assets, that is conditioned on termination of the merger with ONI Systems or CIENA fails to recommend rejection of a tender offer, then CIENA must pay ONI Systems a termination fee of \$36.7 million, as well as reimbursement of up to \$2 million for expenses incurred in the merger negotiation. However, except as described in the next sentence, CIENA will have no obligation to pay a termination fee or to reimburse ONI Systems' expenses if the merger agreement is terminated by ONI Systems as a result of a modification, withdrawal or amendment in a manner adverse to ONI Systems of CIENA's board of directors' recommendation to its stockholders and the principal reason for the change is a development or combination of developments relating to ONI Systems that, individually or in the aggregate, has had or is reasonably likely to result in a material adverse effect on ONI Systems. CIENA will be required to pay a \$87.2 million termination fee, less amounts previously paid, and to reimburse ONI Systems' 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 ONI Systems in the event of a change in the CIENA board of directors' recommendation for reasons relating to a material adverse effect on ONI Systems, if:

- at the time of CIENA's stockholders meeting to vote on the merger or the change in the board of directors recommendation, as applicable, any person shall have made an acquisition proposal to CIENA or any of its stockholders that is then publicly known or shall have publicly announced an intention to make an acquisition proposal with respect to CIENA; and
- CIENA enters into an agreement concerning that 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 in writing 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.

Stockholder approval may not be waived. If a material condition is waived by either CIENA or ONI Systems, the company waiving the condition intends to resolicit the vote of its stockholders.

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Expenses

CIENA and ONI Systems 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

Certain directors and officers of ONI Systems owning approximately % of the ONI Systems common stock outstanding as of , 2002 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 against any alternative acquisition proposal; and
- vote against any amendment of ONI Systems' 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 ONI Systems.

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 ONI Systems shares to any person, subject to limited exceptions;
- enter into any voting arrangement, whether by proxy, voting agreement or otherwise, in relation to their ONI Systems shares; or
- 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 alternative 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 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 Annex B to this joint proxy statement/prospectus.

Restrictions on Resales by Affiliates

The shares of CIENA stock to be issued to ONI Systems' 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 ONI Systems 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 ONI Systems must be one permitted by the resale provisions of Rule 145 promulgated under the Securities Act. If an ONI Systems 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. These restrictions are expected to apply to the executive officers and directors of ONI Systems. Affiliates of ONI Systems have agreed to comply with these restrictions. In addition, pursuant to affiliate agreements executed by Messrs. Martin, Cumpston and Sharma, these executive officers have agreed not to sell shares of CIENA received in the merger for a period of 180 days after the completion of the merger. The form of affiliate agreement executed by Messrs. Martin, Cumpston and Sharma is attached as Annex C to this joint proxy statement/prospectus.

UNAUDITED PRO FORMA COMBINED FINANCIAL STATEMENTS

The following unaudited pro forma combined financial statements present the effect of the pending merger between CIENA and ONI Systems as if the merger had been completed on November 1, 2000 for results of operations purposes and on January 31, 2002 for balance sheet purposes. Due to different fiscal periods for CIENA and ONI Systems, the January 31, 2002 pro forma combined balance sheet is based upon the historical consolidated balance sheet data of CIENA as of January 31, 2002, and the historical balance sheet data of ONI Systems as of December 31, 2001. The October 31, 2001 pro forma combined statement of operations includes the historical consolidated statement of operations data of CIENA for the twelve months ended October 31, 2001 and the consolidated historical statement of operations data of ONI Systems for the twelve months ended December 31, 2001. The January 31, 2002 pro forma combined statement of operations includes the historical consolidated statement of operations data of CIENA for the three months ended January 31, 2002 and the consolidated historical statement of operations data of ONI Systems for the three months ended December 31, 2001. Due to the difference in year ends, the ONI Systems fourth quarter 2001 operating results are included in both the year ended October 31, 2001 and three months ended January 31, 2002 pro forma operating results. On March 29, 2001, CIENA acquired Cyras Systems, Inc. in a purchase business combination. Due to the significance of that acquisition, the CIENA pro forma operating results include adjustments to reflect the acquisition of Cyras Systems as of November 1, 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.

This unaudited pro forma combined consolidated financial data should be read in conjunction with the summary selected historical consolidated financial data and the unaudited pro forma combined consolidated financial statements and accompanying notes contained elsewhere in this joint proxy statement/prospectus and the separate historical consolidated financial statements and accompanying notes of CIENA, Cyras Systems, Inc. and ONI Systems incorporated by reference into this joint proxy statement/prospectus. See the section entitled "Where You Can Find More Information" beginning on page of this joint proxy statement/prospectus.

The following factors, which have not been reflected in the unaudited pro forma combined financial statements, should be considered by the reader in connection with the following unaudited pro forma combined financial statements:

- ONI Systems has a commitment to issue options to certain employees in accordance with the terms of ONI Systems' offer to exchange dated October 19, 2001. If the merger closes before the replacement option grant date, which is expected to be May 20, 2002, CIENA would issue the replacement options, and the number of shares subject to the replacement options would be determined by multiplying the number of shares of ONI Systems common stock that would have been covered by each option by 0.7104. The exercise price of the replacement options would be the fair market value of CIENA's common stock on the grant date. If the merger closes after the replacement option grant date, which is the expected case, ONI Systems will issue the replacement options, which will then be converted into CIENA options at the exchange ratio following the closing of the merger. Options to purchase up to 5,159,535 shares of CIENA common stock may be issued under the offer to exchange and options to purchase up to 386,330 shares of CIENA common stock may be issued to employees of ONI Systems based overseas. If the merger closes before the replacement option grant date then CIENA would record these options in the same manner as it would record options issued to CIENA employees with no impact on the purchase price. If the merger closes after the replacement option grant date then CIENA would record the fair value of the options as additional purchase price with the intrinsic value of the options being recorded as deferred compensation.
- During the three months ended April 30, 2002, CIENA expects to record a restructuring charge of between \$125 million and \$135 million associated with workforce reduction, lease termination, non-cancellable lease costs and the write-down of certain property, equipment and leasehold improvements. In addition, CIENA also expects to record for this period a charge of approximately \$200 million to \$225 million, primarily related to excess inventory associated with its long-haul transport products and purchase commitments with suppliers.
- All of CIENA's \$150 million principal amount of convertible subordinated notes due August 15, 2005 were redeemed and retired by CIENA on April 30, 2002 at a total redemption price of \$178.41 million.

UNAUDITED PRO FORMA COMBINED BALANCE SHEET

As of January 31, 2002
(in thousands)

	Historical		Adjustments	January 31, 2002 Pro Forma
	January 31, CIENA	December 31 ONI Systems		Combined
ASSETS				
Current assets:				
Cash and cash equivalents	\$ 472,533	\$ 338,511	\$ (9,245)A	\$ 801,799
Short-term investments	1,051,117	26,457		1,077,574
Accounts receivable, net	150,221	43,945		194,166
Inventory	250,191	53,836		304,027
Deferred income taxes	60,234	—		60,234
Prepaid expenses and other	47,110	11,114		58,224
	<u>2,031,406</u>	<u>473,863</u>	<u>(9,245)</u>	<u>2,496,024</u>
Total current assets				
Long-term investments	416,330	313,834		730,164
Equipment, furniture and fixtures, net	316,039	97,286		413,325
Goodwill	178,891	10,946	351,477 A	541,314
Other intangible assets, net	46,061	12,519	16,381 A	74,961
Deferred income taxes	160,496	—		160,496
Other assets	69,555	7,907		77,462
	<u>\$ 3,218,778</u>	<u>\$ 916,355</u>	<u>\$358,613</u>	<u>\$ 4,493,746</u>
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities				
Accounts payable	\$ 46,962	\$ 8,953	\$ —	\$ 55,915
Accrued liabilities	125,883	44,076		169,959
Income taxes payable	6,399	—		6,399
Deferred revenue	21,435	5,281		26,716
Other current obligations	1,159	217		1,376
Convertible notes payable	176,533	—		176,533
	<u>378,371</u>	<u>58,527</u>	<u>—</u>	<u>436,898</u>
Total current liabilities				
Deferred income taxes	58,318	—		58,318
Long-term deferred revenue	17,984	—		17,984
Other long-term obligations	5,740	48		5,788
Convertible notes payable	690,000	300,000		990,000
	<u>1,150,413</u>	<u>358,575</u>	<u>—</u>	<u>1,508,988</u>
Total liabilities				
Commitments and contingencies				
Stockholders' equity:				
Preferred stock	—	—		—
Common stock	3,286	14	983 A	4,283
Additional paid-in capital	3,676,192	941,247	(18,727)A, C	4,598,712
Notes receivable from stockholders	(2,453)	(4,124)		(6,577)
Accumulated other comprehensive income	5,347	1,419	(1,419)A	5,347
Accumulated deficit	(1,614,007)	(380,776)	377,776 A	(1,617,007)
	<u>2,068,365</u>	<u>557,780</u>	<u>358,613</u>	<u>2,984,758</u>
Total stockholders' equity				
Total liabilities and stockholders' equity	<u>\$ 3,218,778</u>	<u>\$ 916,355</u>	<u>\$358,613</u>	<u>\$ 4,493,746</u>

UNAUDITED PRO FORMA COMBINED

STATEMENT OF OPERATIONS
Year Ended October 31, 2001
(In thousands, except per share data)

	Pro Forma October 31, 2001 CIENA	Historical December 31, 2001 ONI SYSTEMS	Adjustments	Pro Forma Combined October 31, 2001
Revenue	\$ 1,603,229	\$ 195,680	\$ —	\$ 1,798,909
Cost of goods sold (exclusive of \$0, \$4,141, \$2,800 and \$6,941 deferred stock compensation costs)	904,549	166,616	—	1,071,165
Gross profit	698,680	29,064	—	727,744
Operating expenses				
Research and development (exclusive of \$26,185, \$11,205, \$2,562 and \$39,952 deferred stock compensation costs)	284,885	78,355	—	363,240
Sales and marketing (exclusive of \$10,791, \$7,937, \$5,027 and \$23,755 deferred stock compensation costs)	152,476	51,322	—	203,798
General and administrative (exclusive of \$18,066, \$3,726, \$1,092 and \$22,884 deferred stock compensation costs)	65,105	26,767		91,872
Deferred stock compensation costs	55,042	27,009	11,481 C	93,532
Amortization of goodwill	300,301	3,981	(3,981)D	300,301
Amortization of intangible assets	8,863	5,086	1,528 B	15,477
In-process research and development	—	8,240	—	8,240
Restructuring costs	15,439	17,350	—	32,789
Goodwill impairment	1,719,426	—	—	1,719,426
Provision for doubtful accounts	(6,579)	10,621	—	4,042
Total operating expenses	2,594,958	228,731	9,028	2,832,717
Loss from operations	(1,896,278)	(199,667)	(9,028)	(2,104,973)
Other income, net	23,336	11,813	—	35,149
Loss before income taxes	(1,872,942)	(187,854)	(9,028)	(2,069,824)
Provision for income tax	87,385	412	—	87,797
Net loss	\$(1,960,327)	\$(188,266)	\$ (9,028)	\$(2,157,621)
Basic net loss per common share	\$ (6.11)	\$ (1.40)		\$ (5.14)
Diluted net loss per common share and dilutive potential common share	\$ (6.11)	\$ (1.40)		\$ (5.14)
Weighted average basic common shares outstanding	320,893	134,756	(36,045)A	419,604
Weighted average basic common and dilutive potential common shares outstanding	320,893	134,756	(36,045)A	419,604

UNAUDITED PRO FORMA CIENA
STATEMENT OF OPERATIONS
Year Ended October 31, 2001
(In thousands, except per share data)

	October 31, 2001 Historical CIENA	Five Months Ended March 29, 2001 Historical Cyras	Adjustments	Pro Forma October 31, 2001 CIENA
Revenue	\$ 1,603,229	\$ —	\$ —	\$ 1,603,229
Cost of goods sold (exclusive of \$0, \$0, \$0, and \$0 deferred stock compensation costs)	904,549	—	—	904,549
Gross profit	698,680	—	—	698,680
Operating expenses				
Research and development (exclusive of \$17,825, \$16,830, (\$8,470), and \$26,185 deferred stock compensation costs)	235,831	49,054	—	284,885
Sales and marketing (exclusive of \$8,336, \$8,289, (\$5,834), and \$10,791 deferred stock compensation costs)	146,949	5,527	—	152,476
General and administrative (exclusive of \$15,206, \$8,371, (\$5,511), and \$18,066 deferred stock compensation costs)	57,865	7,240	—	65,105
Merger related expenses	—	30,204	(30,204)E	—
Deferred stock compensation costs	41,367	33,490	(19,815)F	55,042
Amortization of goodwill	177,786		122,515 G	300,301
Amortization of intangible assets	4,413		4,450 H	8,863
In-process research and development	45,900		(45,900)I	—
Restructuring costs	15,439	—	—	15,439
Goodwill impairment	1,719,426	—	—	1,719,426
Provision for doubtful accounts	(6,579)	—	—	(6,579)
Total operating expenses	2,438,397	125,515	31,046	2,594,958
Loss from operations	(1,739,717)	(125,515)	(31,046)	(1,896,278)
Other income (expense), net	32,988	(9,652)	—	23,336
Loss before income taxes	(1,706,729)	(135,167)	(31,046)	(1,872,942)
Provision (benefit) for income tax	87,333	52	—	87,385
Net loss	\$(1,794,062)	\$(135,219)	\$ (31,046)	\$(1,960,327)
Basic net loss per common share	\$ (5.75)			\$ (6.11)
Diluted net loss per common share and dilutive potential common share	\$ (5.75)			\$ (6.11)
Weighted average basic common shares	311,815		9,078 J	320,893
Weighted average basic common and dilutive potential common shares outstanding	311,815		9,078 J	320,893

UNAUDITED PRO FORMA COMBINED
STATEMENT OF OPERATIONS
Three Months Ended January 31, 2002
(In thousands, except per share data)

	Historical			Three Months Ended January 31, 2002 Pro Forma Combined
	Three Months Ended January 31, 2002 CIENA	Three Months Ended December 31, 2001 ONI Systems	Adjustments	
Revenue	\$ 162,156	\$ 42,163	\$ —	\$ 204,319
Cost of good sold (exclusive of \$0, (\$275), \$1,519 and \$1,244 deferred stock compensation costs)	139,687	34,978	—	174,665
Gross profit	22,469	7,185	—	29,654
Operating expenses				
Research and development (exclusive of \$3,951, (\$981), \$3,448 and \$6,418 deferred stock compensation costs)	64,756	19,830	—	84,586
Sales and marketing (exclusive of \$956, (\$786), \$3,109 and \$3,279 deferred stock compensation costs)	37,600	13,620	—	51,220
General and administrative (exclusive of \$227, (\$292), \$1,155 and \$1,090 deferred stock compensation costs)	13,655	6,957	—	20,612
Deferred stock compensation costs	5,134	(2,334)	9,231 C	12,031
Amortization of goodwill	—	1,233	(1,233)D	—
Amortization of intangible assets	1,813	1,473	181 B	3,467
Restructuring costs	6,828	1,258	—	8,086
Total operating expenses	129,786	42,037	8,179	180,002
Loss from operations	(107,317)	(34,852)	(8,179)	(150,348)
Other income, net	361	369	—	730
Loss before income taxes	(106,956)	(34,483)	(8,179)	(149,618)
Provision (benefit) for income taxes	(36,365)	255	—	(36,110)
Net loss	\$ (70,591)	(34,738)	\$ (8,179)	\$(113,508)
Basic net loss per common share	\$ (0.22)	\$ (0.25)		\$ (0.27)
Diluted net loss per common and dilutive potential common share	\$ (0.22)	\$ (0.25)		\$ (0.27)
Weighted average basic common shares outstanding	327,620	136,970	(38,259)A	426,331
Weighted average basic common and dilutive potential common shares outstanding	327,620	136,970	(38,259)A	426,331

NOTES TO UNAUDITED PRO FORMA**COMBINED FINANCIAL DATA****NOTE 1 — BASIS OF PRESENTATION**

On February 18, 2002, CIENA Corporation (“CIENA”) announced that it had entered into the agreement to acquire by merger ONI Systems in a transaction to be accounted for as a purchase. Under the terms of the agreement, each outstanding share of capital stock of ONI Systems will be exchanged for 0.7104 shares of CIENA common stock, and CIENA will assume all ONI Systems’ outstanding options and warrants as well as its outstanding convertible debt. Assuming the acquisition was consummated on February 19, 2002, the stockholders of ONI Systems would have received approximately 100,492,228 shares of CIENA common stock of which an estimated 1,780,909 are restricted and subject to repurchase. Additionally, CIENA would have converted approximately 13,686,002 ONI Systems options and warrants into approximately 9,722,535 options and warrants to purchase CIENA common stock. The purchase price of approximately \$988.5 million is preliminary and the actual number of shares, stock options and warrants to be exchanged or assumed by CIENA will depend on the actual number outstanding as of the date of consummation of the merger.

CIENA has been identified as the acquiring entity for accounting purposes. This is based on CIENA shares being issued to consummate the transaction and remaining as the surviving security; CIENA stockholders retaining the larger portion of the voting rights of the combined entity; executive management of CIENA including the chairman of the board, chief executive officer and chief financial officer continuing in these capacities in the combined companies; ONI Systems will not have any board representation; and the transaction exchange rate providing that ONI Systems stockholders would receive a premium over the market value of the ONI Systems stock exchanged (based on the date the transaction was announced).

In determining the purchase price, CIENA used the estimated value of CIENA common stock is approximately \$8.75 per share based on the average closing price of CIENA’s common stock for the two trading days before the announcement and the two trading days after the announcement. The actual purchase price allocation is not expected to materially differ from the amounts reflected below. The actual purchase price allocation is based upon the fair values of the acquired assets and assumed liabilities as of the acquisition date and dependent upon the finalization of the preliminary valuation report.

The purchase was estimated as follows (in millions):

CIENA common stock issued for ONI Systems common stock	\$863.7
Issuance of CIENA options, warrants and restricted stock for ONI Systems options, warrants and restricted stock	115.6
Estimated transaction costs	9.2
	<hr/>
	\$988.5
	<hr/>

**NOTES TO UNAUDITED PRO FORMA
COMBINED FINANCIAL DATA — (Continued)**

The following is a preliminary allocation of the purchase price using ONI Systems' December 31, 2001 balances (in thousands):

Cash, cash equivalents, long and short-term investments	\$ 678,802
Inventory	53,836
Equipment, furniture and fixtures, net	97,286
Other tangible assets and note receivable from stockholder	67,090
Existing technology	26,000
Non compete	2,000
Contracts	900
Goodwill	362,423
In-process research and development	3,000
Deferred stock compensation	55,763
Assumed liabilities	(58,575)
Convertible subordinated notes	(300,000)
	<hr/>
Total purchase price	\$ 988,525

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. The \$3.0 million amount allocated to in-process research and development represents the purchased in-process technology 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 values 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.

CIENA is in the process of determining the amount of any integration or restructuring costs associated with the acquisition. These costs are expected to include expenses associated with involuntary employee terminations, employee relocations, lease terminations, non-cancelable lease costs and other costs associated with the integration and/or exit of certain business activities. It is expected that certain of these costs will qualify for treatment under EITF 95-3 "Recognition of Liabilities in Connection with a Purchase Business Combination" and be recorded as an element of the acquisition.

NOTE 2 — PRO FORMA ADJUSTMENTS

- A To reflect acquisition of ONI Systems based on the preliminary purchase price allocation described in Note 1.
- B To reflect amortization of developed technology over its estimated useful life of seven years and noncompete and contracts over their estimated useful life of one year, as if the acquisition occurred on November 1, 2000. The \$3.0 million amount allocated to in-process research and development has not been included in the unaudited pro forma combined statements of

**NOTES TO UNAUDITED PRO FORMA
COMBINED FINANCIAL DATA — (Continued)**

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 ONI Systems 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 ONI Systems unvested stock options and restricted common stock.
- D To eliminate historical goodwill amortization for ONI Systems related to the three months ended December 31, 2001 for consistency. Since CIENA adopted Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets" (SFAS No. 142), CIENA ceased amortization of goodwill beginning on November 1, 2001.

On March 29, 2001, CIENA acquired all of the outstanding capital stock and assumed the options of Cyras Systems, Inc. ("Cyras"). The purchase price was approximately \$2.2 billion and consisted of the issuance of 26.1 million shares of CIENA common stock, the assumption of approximately 1.9 million stock options and the indirect assumption of \$150 million principal amount of Cyras' convertible subordinated indebtedness. The transaction was recorded using the purchase accounting method. In connection with the acquisition, CIENA recorded goodwill of \$2.1 billion, in-process research and development of \$45.9 million and \$47.7 million of intangibles associated with developed technology. Since the CIENA operating results for the year ended October 31, 2001 include 7 months of Cyras operations, the CIENA historical operating results have been adjusted to include an additional 5 months of Cyras operations in the pro forma statement of operations. The following are the descriptions of the pro forma adjustments related to the Cyras acquisition:

- E To eliminate the merger related costs incurred by Cyras in connection with the acquisition by CIENA. These costs would not have been incurred if the acquisition had been consummated as of November 1, 2000.
- F To eliminate the 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.
- G To record goodwill amortization expense associated with the Cyras acquisition for the five-month period prior to the Cyras consummation date.
- H To record the amortization of other intangibles associated with the Cyras acquisition for the five-month period prior to the Cyras consummation date.
- I To eliminate the in-process research and development charge which CIENA recorded on the Cyras acquisition. This charge would not have been recorded during fiscal 2001 if the acquisition had been consummated as of November 1, 2000.
- J To adjust the CIENA weighted average common shares to reflect the acquisition of Cyras as of November 1, 2000.

INFORMATION ABOUT CIENA

General

CIENA is a leader in the intelligent optical networking equipment industry. CIENA offers a portfolio of products for communications service providers worldwide. CIENA's customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers, and 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. CIENA's strategy is to use its technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage.

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 joint proxy statement/ prospectus or set forth in CIENA's Annual Report on Form 10-K for the year ended October 31, 2001 and Quarterly Report on Form 10-Q for the quarter ended January 31, 2002. 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 ONI SYSTEMS

General

ONI Systems develops, markets and sells optical communications networking equipment specifically designed to address the bandwidth and service limitations of metropolitan area and regional networks. ONI Systems' equipment uses pulses of light rather than electric current in the transmission and routing of telephone, Internet and other data communications in these networks. Communication service providers can cost-effectively deploy ONI Systems' products to relieve the traffic bottleneck in their networks and offer new data communication services to their customers. ONI Systems' products help service providers to rapidly build high capacity networks that are flexible, easy to expand and capable of supporting multiple services on a single platform. In addition, ONI Systems' equipment can be introduced into a network without requiring complete replacement of the existing network infrastructure.

Additional Information

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

CIENA CAPITAL STOCK AND COMPARISON OF STOCKHOLDER RIGHTS

If the merger is completed, shares of ONI Systems common stock will be converted into shares of CIENA common stock. As a result, ONI Systems stockholders, whose rights are currently governed by the Delaware General Corporation Law and ONI Systems' certificate of incorporation and bylaws, will become CIENA stockholders, whose rights are governed by the Delaware General Corporation Law and CIENA's certificate of incorporation and bylaws.

The following is a description of the capital stock of CIENA, including the CIENA common stock to be issued in the merger, and a summary of the material differences between the rights of CIENA stockholders and ONI Systems stockholders. These differences arise from the differences between CIENA's certificate of incorporation and bylaws relative to ONI Systems' certificate of incorporation and bylaws. Although it is impractical to compare all of the aspects in which the companies' governing instruments differ with respect to stockholders' rights, the following discussion summarizes the significant differences between them.

DESCRIPTION OF CIENA CAPITAL STOCK

The following summary description of the capital stock of CIENA does not purport to be complete and is qualified in its entirety by the provisions of CIENA's certificate of incorporation and bylaws and by the applicable provisions of the Delaware General Corporation Law. For information on how to obtain copies of CIENA's certificate of incorporation and bylaws, see "Where You Can Find More Information."

Authorized and Outstanding Capital Stock of CIENA

Pursuant to CIENA's certificate of incorporation, CIENA has authority to issue 1,000,000,000 shares of capital stock, consisting of 980,000,000 shares of CIENA common stock, par value \$0.01 per share, and 20,000,000 shares of preferred stock, par value \$0.01 per share. As of _____, 2002, _____ shares of CIENA common stock, and no shares of CIENA preferred stock were issued and outstanding.

The rights of the holders of CIENA common stock discussed below are subject to such rights as the CIENA board of directors may hereafter confer on holders of CIENA preferred stock that may be issued in the future. Such rights may adversely affect the rights of holders of CIENA common stock.

CIENA Common Stock

Voting Rights. Each holder of CIENA common stock is entitled to attend all special and annual meetings of the stockholders of CIENA and to vote upon any matter, including, without limitation, the election of directors, properly considered and acted upon by the stockholders of CIENA. Holders of CIENA common stock are entitled to one vote per share of common stock held.

Liquidation Rights. In the event of any dissolution, liquidation or winding up of CIENA, whether voluntary or involuntary, the holders of CIENA common stock and holders of any class or series of stock entitled to participate therewith, will be entitled to participate in the distribution of any assets of CIENA remaining after CIENA has paid all of its debts and liabilities and after CIENA has paid, or set aside for payment, to the holders of any class of stock having preference over the CIENA common stock in the event of dissolution, liquidation or winding up the full preferential amounts, if any, to which they are entitled.

Dividends. Dividends may be paid on the CIENA common stock and on any class or series of stock entitled to participate therewith when and as declared by the CIENA board of directors out of funds available for the payment of dividends as provided by law.

No Preemptive or Conversion Rights. The holders of CIENA common stock have no preemptive or subscription rights to purchase additional securities issued by CIENA nor any rights to convert their CIENA common stock into other securities of CIENA or to have their shares redeemed by CIENA.

CIENA Preferred Stock

CIENA has no preferred stock outstanding. However, CIENA has classified shares of series A junior participating preferred stock in connection with the establishment of its Stockholder Rights Plan, as described further below.

Limitation of Liability and Indemnification

Limitations of Director Liability. Delaware law authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breach of directors' fiduciary duty of care. Although Delaware law does not change directors' duty of care, it enables corporations to limit available relief to equitable remedies such as injunction or rescission. CIENA's certificate of incorporation limits the liability of directors to CIENA or its stockholders to the full extent permitted by Delaware law. Specifically, directors of CIENA are not personally liable for monetary

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damages to CIENA or its stockholders for breach of the director's fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to CIENA or its stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

Indemnification. CIENA's bylaws provide for mandatory indemnification of directors and officers of CIENA to the fullest extent permitted by the Delaware General Corporation Law against any expense, liability or loss to which they may become subject, or which they may incur as a result of being or having been a director or officer of CIENA. In addition, CIENA must advance or reimburse directors and officers for expenses they incur in connection with indemnifiable claims or may pay such expenses in advance of the final disposition of the claim upon receipt of an undertaking by such director or officer to repay advanced expenses if it is ultimately determined that the director is not entitled to indemnification.

CIENA also maintains directors' and officers' liability insurance.

Certain Charter and Statutory Provisions; Stockholder Rights Plan

Classified Board of Directors. CIENA's certificate of incorporation provides for the division of the CIENA board of directors into three classes of directors, consisting of two or more directors each, serving staggered three-year terms. CIENA's certificate of incorporation further provides that the approval of the holders of at least two-thirds of the shares entitled to vote thereon and the approval of a majority of the entire CIENA board of directors are necessary for the alteration, amendment or repeal of certain sections of CIENA's certificate of incorporation relating to the election and classification of the CIENA board of directors, action by written consent, limitation of director liability, indemnification and the vote requirements for such amendments to CIENA's certificate of incorporation. These provisions may deter hostile takeovers or delay changes in control or management of CIENA.

Action by Written Consents. CIENA's certificate of incorporation eliminates action by written consent of stockholders. This provision, which makes it difficult for stockholders to act outside of a special meeting, may also deter hostile takeovers or delay changes in control or management of CIENA.

Certain Statutory Provisions. CIENA is subject to the provisions of Section 203 of the DGCL. In general, this statute prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to such date, the corporation's board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in such person becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding, for purposes of determining the number of shares outstanding, shares owned by certain directors or certain employee stock plans; or
- on or after the date the stockholder became an interested stockholder, the business combination is approved by the corporation's board of directors and authorized by the affirmative vote, and not by written consent, of at least two-thirds of the outstanding voting stock of the corporation excluding that stock owned by the interested stockholder.

A "business combination" includes a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person, other than the corporation and any direct or indirect wholly owned subsidiary of the corporation, who together with affiliates and associates,

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owns or, as an affiliate or associate, within three years prior, did own 15% or more of the corporation's outstanding voting stock.

Section 203 expressly exempts from the requirements described above any business combination by a corporation with an interested stockholder who becomes an interested stockholder in a transaction approved by that corporation's board of directors.

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 stockholders and will not interfere with a merger approved by the board of directors. Under the plan, each CIENA stockholder received a right that entitles stockholders to buy one one-thousandth of a share of junior preferred stock of CIENA for each share of common stock held. 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 stockholders 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 stockholders of record in January 1998. The rights will expire December 29, 2007 and are redeemable for \$0.001 per right at the approval of CIENA's board of directors. All of the CIENA shares to be issued to ONI Systems' stockholders will be issued with rights attached.

Transfer Agent and Registrar

The transfer agent and registrar for the CIENA common stock is EquiServe Trust Company.

COMPARISON OF STOCKHOLDER RIGHTS

General

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

Capitalization

CIENA. CIENA is authorized to issue 980,000,000 shares of common stock and 20,000,000 shares of preferred stock. On _____, 2002, _____ shares of CIENA common stock were outstanding and no shares of CIENA preferred stock were outstanding. CIENA's board of directors has the authority, without stockholder approval, to issue shares of authorized 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.

ONI Systems. ONI Systems is authorized to issue 700,000,000 shares of common stock, and 10,000,000 shares of preferred stock. As of _____, 2002, ONI Systems had issued and outstanding _____ shares of common stock, and no shares of preferred stock.

Voting Rights

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

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

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 currently has eight directors and the board of directors may increase or decrease the size of the board of directors by resolution.

ONI Systems. ONI Systems' bylaws provide that the initial number of directors will be six and thereafter will be fixed from time to time exclusively by resolution of its board of directors. Each director holds office until that director's successor is elected and qualified or until that director's earlier death, resignation or removal. No decrease in the authorized number of directors may shorten the term of any incumbent director. ONI Systems' bylaws create three classes of directors with the number of directors in each class to be as equal as reasonably possible. The three classes of directors serve three year staggered terms, so that a different class stands for election each year.

Removal of Directors

CIENA. CIENA's charter provides that, subject to the rights of any then-outstanding series of preferred stock, any director or the entire board of directors may be removed from office at any time, with or without cause 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, voting together as a separate class. CIENA's bylaws provide that a director may only be removed from office by the stockholders at a special meeting called for that purpose.

ONI Systems. ONI Systems' bylaws provide that a director may be removed, with or without cause, upon a vote by a majority of the shares entitled to vote at an election of directors. A director may not be removed without cause if the total number of votes cast against removal and the number of those shares not consenting in writing to the removal would be sufficient to elect the director if voted cumulatively,

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whether or not shares may otherwise be voted cumulatively, at a meeting where the same total number of votes were cast (or, if by written consent, all shares entitled to vote were voted) and either (1) the number of directors elected at the most recent annual meeting of stockholders, or (2) the number of directors for whom removal is sought (if greater), were then being elected.

Filling Vacancies on the Board of Directors

CIENA. CIENA's charter provides that, subject to the rights of any then-outstanding series of preferred stock, if a vacancy occurs on the CIENA board of directors (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 of directors), 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.

ONI Systems. ONI Systems' bylaws provide that, subject to the rights of the holders of any series of preferred stock, any vacancy on the board of directors or any newly created directorship may be filled only by the affirmative vote of a majority of directors then in office, though less than a quorum, unless the board of directors determines by resolution that such vacancies or newly created directorships shall be filled by stockholders or as otherwise provided by law.

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 then-outstanding shares of the capital stock of CIENA entitled to vote on the election of directors, voting together as a separate class, is required to amend certain provisions of CIENA's charter relating to the board of directors, stockholder action, amendment of the charter, limitation of director liability 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.

ONI Systems. ONI Systems' charter provides that the affirmative vote of the holders of at least 66 2/3% of the voting power of all then-outstanding shares of the capital stock of ONI Systems entitled to vote on the election of directors is required to amend certain provisions of ONI Systems' charter relating to amendment of ONI Systems' bylaws, limitation of director liability and indemnification of officers and directors of ONI Systems. Otherwise, the charter may be amended by the holders of a majority of the voting power of all outstanding shares of ONI Systems stock.

Amendments to Bylaws

CIENA. CIENA's charter provides that the bylaws may be amended by a majority vote of the total number of authorized directors (whether or not there exist any vacancies in the previously authorized directorships at the time any resolution providing for amendment is presented to the board) or in addition to any vote of any holders of any class or series of CIENA stock required by law or by CIENA's charter by an affirmative vote of the holders of at least 66 2/3% of the voting power of all the then-outstanding shares of the capital stock of CIENA entitled to vote on the election of directors voting together as a single class.

ONI Systems. ONI Systems' charter provides that the bylaws may be amended by a majority vote of the board of directors or by an affirmative vote of the holders of at least 66 2/3% of ONI Systems' outstanding voting stock then entitled to vote at an election of directors. ONI Systems' charter further provides that the preceding provision of its bylaws may only be amended by an affirmative vote of the holders of at least 66 2/3% of ONI Systems' outstanding voting stock then entitled to vote at an election of directors voting together as a single class.

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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.

ONI Systems. ONI Systems' 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.

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 a meeting of stockholders, except in the case of a special meeting of the stockholders, which requires notice of the purposes for which a meeting is called.

ONI Systems. ONI Systems' charter and bylaws require advance notice for stockholder nominations for the election of directors and of business to be brought by any stockholders at all meetings of stockholders.

Right to Call Special Meeting of Stockholders

CIENA. CIENA's charter provides that a special meeting may only be called by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the board of directors for adoption) or by the holders of not less than ten percent (10%) of all of the shares entitled to cast votes at the meeting.

ONI Systems. ONI Systems' bylaws provide that a special meeting of stockholders may be called at any time by the chairman of the board of directors, the chief executive officer, the holders of shares of the corporation that are entitled to cast not less than ten percent (10%) of the total number of votes entitled to be cast by all stockholders at the meeting, or by a majority of the board of directors. If a special meeting is called by any person or persons other than by a majority of the board of directors, a written request must be delivered to the board of directors, who then determines the time, date and place of the meeting.

Dividends

CIENA. CIENA's bylaws provide that, from time to time, CIENA's board of directors 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.

ONI Systems. ONI Systems' board of directors may declare and pay dividends upon shares of ONI Systems stock as provided by law out of funds legally available therefor.

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.

ONI Systems. In the event of a liquidation of ONI Systems, the holders of ONI Systems common stock shall receive all remaining assets of ONI Systems ratably in proportion to the number of shares of common stock held by them.

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.

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

Stockholder Proposals

CIENA. All stockholder proposals intended to be included in the proxy statement for CIENA's 2003 Annual Meeting must be received by CIENA not later than October 3, 2002 and must otherwise comply with the rules of the SEC for inclusion in CIENA's proxy statement and form of proxy relating to that meeting. Proposals should be delivered to CIENA Corporation, 1201 Winterson Road, Linthicum, Maryland 21090, Attention: Corporate Secretary.

Except in the case of proposals intended to be included in the proxy statement, stockholders intending to bring any business before an annual meeting of stockholders must deliver written notice thereof to CIENA's Secretary no later than December 17, 2002. If a stockholder gives notice of such a proposal after the December 17, 2002 deadline, CIENA's proxy holders will be allowed to use their discretionary voting authority to vote against the stockholder proposal when and if the proposal is raised at CIENA's 2003 annual meeting.

ONI Systems. ONI Systems will hold an annual meeting in the year 2002 only if the merger has not already been completed. If the annual meeting is held, any proposals of stockholders intended to be presented at the 2002 annual meeting must be received by the Secretary of ONI Systems no later than the date announced by ONI Systems a reasonable time in advance of the meeting date in order to be considered for inclusion in the ONI Systems proxy materials relating to such meeting. Any notice of a proposal for which a stockholder will conduct his or her own solicitation must be received by the Secretary of ONI Systems no later than

OTHER MATTERS

Legal Matters

The legal validity of the CIENA common stock offered hereby will be passed upon by Hogan & Hartson L.L.P., counsel to CIENA.

The federal income tax consequences described in this joint proxy statement/ prospectus are the subject of opinions issued by Hogan & Hartson L.L.P., counsel to CIENA, and Fenwick & West LLP, counsel to ONI Systems.

Attorneys of Fenwick & West LLP beneficially own an aggregate of approximately 175,000 shares of ONI Systems common stock.

Experts

The consolidated financial statements of CIENA Corporation as of October 31, 2001 and 2000 and for each of the three years in the period ended October 31, 2001 incorporated in this joint proxy statement/ prospectus by reference to CIENA's Annual Report on Form 10-K for the year ended October 31, 2001 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 consolidated financial statements of ONI Systems Corp. as of December 31, 2001 and 2000 and for each of the three years in the period ended December 31, 2001 incorporated in this joint proxy statement/ prospectus by reference to ONI Systems' Annual Report on Form 10-K for the year ended December 31, 2001 have been so included in reliance on the report of KPMG LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

The financial statements of Cyrus Systems, Inc., a development stage company, as of December 31, 2000 and 1999 and for the period from July 24, 1998 (inception) to December 31, 1998, for the years ended December 31, 2000 and 1999 and for the period from July 24, 1998 (inception) to December 31, 2000 incorporated in this joint proxy statement/ prospectus by reference to the CIENA Form 8-K dated April 2, 2001 have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report, which is incorporated herein by reference, and have been so incorporated 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 joint proxy statement/ prospectus, neither the ONI Systems board of directors nor the CIENA board of directors knows of any matter that will be presented for consideration at the special meeting other than as described in this joint proxy statement/ prospectus. 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 CIENA or ONI Systems, as appropriate.

WHERE YOU CAN FIND MORE INFORMATION

CIENA has filed the Registration Statement of which this joint proxy statement/ prospectus is a part. The Registration Statement registers the distribution to ONI Systems stockholders of the shares of CIENA common stock to be issued in connection with the merger.

CIENA and ONI Systems file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any of this information at the SEC's public reference room at 450 Fifth Street N.W., Room 1024, Washington, D.C. 20549. You may obtain information on the operation of the SEC's Public Reference Room by calling the SEC at 1-800-SEC-0330.

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The SEC also maintains an Internet web site that contains reports, proxy statements and other information regarding issuers, like CIENA and ONI Systems, that file electronically with the SEC. The address of that site is <http://www.sec.gov>. The SEC file number for CIENA documents filed under the Exchange Act is 0-21969 and the file number for ONI Systems documents filed under the Exchange Act is 0-30633.

The SEC allows CIENA and ONI Systems to “incorporate by reference” information into this joint proxy statement/ prospectus. 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 joint proxy statement/ prospectus, except for any information that is superseded by information that is included directly in this document.

This joint proxy statement/ prospectus incorporates by reference the documents listed below that CIENA and ONI Systems each has previously filed or will file with the SEC. They contain important information about CIENA and ONI Systems and their respective financial condition.

CIENA:

- CIENA’s annual report on Form 10-K for its fiscal year ended October 31, 2001, filed on December 13, 2001;
- CIENA’s quarterly report on Form 10-Q for the fiscal quarter ended January 31, 2002, filed on February 21, 2002;
- CIENA’s definitive proxy statement filed on February 1, 2002 and additional soliciting materials filed on February 8, 2002;
- CIENA’s current reports on Form 8-K filed on February 5, February 19, and March 26, 2002;
- CIENA’s current report on Form 8-K filed on April 2, 2001 containing the audited financial statements of Cyras Systems;
- 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 joint proxy statement/ prospectus and prior to the date of the special meeting are incorporated by reference into this joint proxy statement/ prospectus, 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.

ONI Systems:

- ONI Systems’ annual report on Form 10-K for its fiscal year ended December 31, 2001, filed on March 19, 2002;
- ONI Systems’ current reports on Form 8-K filed on February 19 and February 25, 2002;
- All documents filed with the SEC by ONI Systems pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this joint proxy statement/ prospectus and prior to the date of the special meeting are incorporated by reference into this joint proxy statement/ prospectus, effective the date such documents are filed; and
- The description of ONI Systems common stock set forth in the ONI Systems Registration Statement filed under Section 12 of the Exchange Act on Form 8-A on May 16, 2000, 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, ONI Systems or from the SEC through the SEC’s web site at the address described above. Documents incorporated by reference are available from CIENA or ONI Systems without charge, excluding any

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exhibits to those documents unless the exhibit is specifically incorporated by reference as an exhibit in this joint proxy statement/ prospectus. You can obtain documents incorporated by reference in this joint proxy statement/ prospectus by requesting them in writing or by telephone from CIENA or ONI Systems at the following addresses:

CIENA Corporation	ONI Systems Corp.
1201 Winterson Road	5965 Silver Creek Valley Road
Linthicum, Maryland 21090	San Jose, California 95138
Attn: General Counsel	Attn: Investor Relations
Telephone (410) 865-8500	Telephone (408) 571-4050

You can also contact us at our websites, www.ciena.com and www.oni.com. If you would like to request documents, please do so by _____, 2002 to receive them before the special meeting. If you request any incorporated documents from CIENA or ONI Systems, we will mail them to you by first class mail, or another equally prompt means, within two business days after we receive your request.

This document constitutes the prospectus of CIENA and the proxy statement of CIENA and ONI Systems. CIENA has supplied all information contained or incorporated by reference in this joint proxy statement/ prospectus relating to CIENA and ONI Systems has supplied all such information relating to ONI Systems.

Neither CIENA nor ONI Systems has authorized anyone to give any information or make any representation about the merger, CIENA or ONI Systems that is different from, or in addition to, that contained in this joint proxy statement/ prospectus or in any of the materials that CIENA or ONI Systems 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.

AGREEMENT AND PLAN OF MERGER

Agreement and Plan Of Merger

between

CIENA Corporation

and

ONI Systems Corp.

Dated as of February 17, 2002

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EXHIBIT INDEX

Exhibit A	Form of Stockholder Agreement
Exhibit B	Form of Affiliate Letter

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AGREEMENT AND PLAN OF MERGER

AGREEMENT AND PLAN OF MERGER (this “Agreement”) dated as of February 17, 2002 by and between **CIENA CORPORATION**, a Delaware corporation (“CIENA”) and **ONI SYSTEMS CORP.**, a Delaware corporation (the “Company”).

RECITALS

WHEREAS, the Boards of Directors of each of CIENA and the Company have determined that the merger of the Company with and into CIENA (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 and the Company and their respective stockholders;

WHEREAS, in order to induce CIENA to enter into this Agreement, concurrently herewith each director and executive officer of the Company and their controlled affiliates are entering into stockholder agreements with CIENA in the form of Exhibit A (the “Stockholder Agreements”), pursuant to which, among other things, each such stockholder agrees to vote in favor of this Agreement and the Merger and against any competing proposals and each director and executive officer of the Company are entering into letter agreements with CIENA in the form of Exhibit B (the “Affiliate Letters”); 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) the Company shall be merged with and into CIENA, (ii) the separate corporate existence of the Company shall cease and (iii) CIENA 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, L.L.P., 111 South Calvert Street, Baltimore, Maryland 21202 at 10:00 A.M., subject to the satisfaction or waiver of the conditions set forth in **Article VI**, and two Business Days after the date on which the last of the conditions set forth in **Sections 6.1(a), 6.1(b), 6.1(d)** and **6.2(c)** 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 shall vest in the Surviving Company, and all debts, liabilities, obligations, and duties of the Company shall become the debts, liabilities, obligations, restrictions, disabilities and duties of the Surviving Company.

(d) Notwithstanding anything in this Agreement to the contrary, if prior to the time of effectiveness of the S-4 Registration Statement referred to in **Section 5.5** below, the Company reasonably in good faith determines, after consultation with CIENA and after having exercised its reasonable best efforts to obtain required consents, that obtaining required consents to the assignment of those material contracts, leases or agreements set forth on **Schedule 6.2(c)** would not be practicable prior to the anticipated Effective Time, and as a result the Company’s ability to satisfy the closing condition set forth in **Section 6.2(c)** would be materially impaired, the Merger will (unless CIENA agrees at such time to waive the closing condition in **Section 6.2(c)**) alternatively be structured so that a wholly-owned subsidiary of CIENA which will be a corporation formed under the laws of the State of Delaware (“Merger Sub”), will merge into Company in a reverse triangular merger intended to qualify as a reorganization under Section 368 of the Code. No change in structure shall (i) alter or change the amount or kind of the Merger Consideration or the tax-free treatment of the Merger, (ii) materially impede or delay the consummation of the transactions contemplated by this Agreement or (iii) materially and adversely affect the ability of any party to timely perform its obligations under this Agreement or

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otherwise to consummate the transactions contemplated by this Agreement. If such change in structure is made, the parties agree to execute an appropriate amendment to this Agreement and any other documents necessary in order to reflect such election and its consequences to the structure of the Merger.

SECTION 1.2. Certificate of Incorporation.

The Certificate of Incorporation of CIENA, as in effect immediately prior to the Effective Time (the "CIENA 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 CIENA, as in effect immediately prior to the Effective Time, shall be 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 CIENA at the Effective Time shall continue as 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 common stock, par value \$0.0001 per share (the "Company Common Stock"):

(a) Each issued and outstanding share of CIENA capital stock immediately prior to the Effective Time shall remain outstanding and unaffected as issued and outstanding shares of the Surviving Company;

(b) Each share of Company Common Stock held in the treasury of the Company and each share of Company Common 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, each then issued and outstanding share of Company Common Stock shall be converted into, and become exchangeable for the right to receive consideration (the "Merger Consideration"), consisting of 0.7104 shares (the "Exchange Ratio") of the common stock, par value \$0.01 per share of CIENA (the "CIENA Common Stock").

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 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 Equiserve Trust Company, N.A. (formerly Bank of Boston, N.A.) as amended by the First Amendment to Rights Agreement dated as of June 2, 1998, the Second Amendment to Rights Agreement dated as of September 13, 1998, and the Third Amendment to Rights Agreement dated as of October 19, 1998 (the "Rights Agreement"). After the Effective Time, all shares of Company Common 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 Exchange Ratio, and thereafter all references to the Exchange Ratio shall be deemed to be to such Exchange Ratio as so adjusted.

SECTION 1.7. 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 Common Stock, certificates representing the shares of the CIENA Common Stock to be issued

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pursuant to **Section 1.5(c)** in exchange for the shares of Company Common Stock and if applicable, any cash in lieu of fractional shares pursuant to **Section 1.8**. (Such shares of CIENA Common Stock, together with any dividends or distributions with respect thereto pursuant to **Sections 1.7(c)** and **1.8**, and such cash 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 Common 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 Common Stock represented by the surrendered Certificate shall have been converted at the Effective Time (B) cash in lieu of any fractional share of CIENA Common Stock in accordance with **Section 1.8** and (C) certain dividends and distributions in accordance with **Section 1.7(c)**, and the Certificates so surrendered shall then be canceled. Subject to **Section 1.7(c)** and **Section 1.8**, until surrendered as contemplated by this **Section 1.7(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 Common Stock shall have been converted.

(c) No dividend 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 1.8** until such holder shall have surrendered its Certificates pursuant to this **Section 1.7**. 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 Common 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 Common 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 CIENA may impose. CIENA 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 1.7(c)** and **Section 1.8** 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 CIENA (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 CIENA a bond in such sum as the Board of Directors may direct as indemnity against any claim that may be made against CIENA 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 Common Stock on the records of the Company. From and after the Effective Time, the holders of shares of Company Common

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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.

(g) Holders of unsurrendered Certificates who were the registered holders at the Effective Time shall be entitled to vote after the Effective Time at any meeting of CIENA stockholders the number of whole shares of CIENA Common Stock represented by such Certificates, regardless of whether such holders have exchanged their Certificates.

SECTION 1.8. 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 Common 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 1.9. Return of Exchange Fund.

Any portion of the Exchange Fund which remains undistributed to the former holders of Company Common 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 Common 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 1.10. No Further Ownership Rights in Company Common 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 1.7**, **Section 1.8** or **Section 1.9**) shall be deemed to have been delivered (and paid) in full satisfaction of all rights pertaining to the Company Common Stock previously represented by such Certificate.

SECTION 1.11. 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 the Company 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, all such deeds, bills of sale, assignments and assurances and do, in the name and on behalf of the Company, 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 and otherwise to carry out the purposes of this Agreement.

SECTION 1.12. Appraisal Rights.

In accordance with Section 262(b) of the DGCL, no appraisal rights shall be available to holders of Company Common Stock in connection with the Merger.

ARTICLE II REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company hereby represents and warrants to CIENA 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 and each of its Subsidiaries is a corporation or other entity duly organized, validly existing and in good standing under the laws of its respective jurisdiction of organization. Each of the Company and each of its Subsidiaries has all requisite

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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. Except as disclosed on **Schedule 2.1**, each of the Company and each of its Subsidiaries 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 does not directly or indirectly own any equity or similar interest in, or any interest convertible into or exchangeable or exercisable for any equity or similar interest in, any Person other than its Subsidiaries, except as set forth on **Schedule 2.1**.

SECTION 2.2. Certificate of Incorporation and Bylaws.

The Company has heretofore delivered or made available 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. The Company has heretofore delivered or made available to CIENA a complete and correct copy of each Subsidiaries' charter and bylaws or equivalent organizational documents, each as amended to and as in effect as of the date hereof.

SECTION 2.3. Capitalization.

(a) The authorized capital stock of the Company consists of 700,000,000 shares of common stock, \$0.0001 par value per share, of which 141,458,654 shares are issued and outstanding on the date hereof, and 10,000,000 shares of preferred stock, par value \$0.0001 per share, none of which are issued and outstanding on the date hereof. 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 that as of the date hereof, there were 11,786,528 shares reserved for issuance pursuant to the options outstanding under the Company's 1997 Stock Option Plan, 1998 Equity Incentive Plan, 1999 Equity Incentive Plan, 2000 Equity Incentive Plan and Davis Stock Option Plan and Agreement (collectively, the "Company Option Plans"), 3,057,540 shares subject to issuance pursuant to the Company's 2000 Employee Stock Purchase Plan (the "ESPP" and together with the Company Option Plans, the "Company Stock Plans"), 543,820 shares subject to issuance pursuant to the Overseas Options, up to 7,262,858 shares subject to options issuable pursuant to the Offer to Exchange, 836,953 shares reserved for issuance pursuant to certain outstanding warrants issued by the Company that are described on **Schedule 2.3** and 3,273,870 shares issuable upon conversion of the Company's 5% Convertible Subordinated Notes due October 15, 2005 (the "Notes"). Except for the Notes, 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. 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 Common 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. Each of the outstanding shares of capital stock or other securities of each of the Company's Subsidiaries is duly authorized, validly issued, fully paid and non-assessable and is owned by the Company or a Company Subsidiary, free and clear of any lien, pledge, security interest or other Encumbrance. Except as disclosed herein, no shares of capital stock of the Company have been reserved for any purpose. **Schedule 2.3** contains a list, which is complete and accurate in all respects as of the date hereof, of each outstanding option and warrant to purchase or acquire shares under each of the Company Stock Plans or otherwise, including the Plan pursuant to which such option or warrant was issued, if applicable, the holder, date of grant, exercise price, vesting and acceleration provisions and number of shares subject thereto.

(b) Except for the Notes and as set forth on **Schedule 2.3**, the Company has no outstanding indebtedness for borrowed money and all such indebtedness except as is set forth on **Schedule 2.3** is prepayable in full, without premium or penalty, at any time, except as otherwise described thereon.

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 outstanding shares of Company

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Common Stock (the “Company Requisite Vote”) and the filing of the Certificate of Merger as contemplated by **Section 1.1(b)**. 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 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 duly and unanimously recommended adoption thereof by the stockholders of the Company.

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 Certificate of Incorporation of the Company (the “Company Certificate”) or the bylaws of the Company, (ii) conflict with or violate any Law applicable to the Company, or (iii) 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 material note, bond, mortgage, indenture, contract, agreement, lease, license, permit, franchise or other instrument or obligation to which it is subject, except as set forth on **Schedule 2.5(a)**.

(b) Other than the filings and/or notices pursuant to or required by (i) the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the “Hart-Scott-Rodino Act”) and Applicable Foreign Competition Laws, (ii) the Securities Exchange Act of 1934, as amended (the “Exchange Act”), (iii) the Securities Act of 1933, as amended (the “Securities Act”), (iv) state securities or “blue-sky” laws, (v) Section 251 of the DGCL and (vi) Nasdaq, the execution and delivery of this Agreement by the Company and the consummation by the Company of the Merger and the other transactions contemplated hereby do not require any filings, notices, consents or approvals with or by any court, administrative agency, commission, government or regulatory authority, domestic or foreign, except those that the failure to make or obtain would not, individually or in the aggregate, be reasonably likely to have a Company Material Adverse Effect or prevent, materially delay or materially impair the ability of the Company to consummate the transactions contemplated by this Agreement.

(c) All consents and waivers required from any person in order to carry out the transactions contemplated hereby under any contract, lease or agreement to which the Company is a party are set forth on **Schedule 2.5**, except those that the failure to make or obtain would not, individually or in the aggregate, be reasonably likely to have a Company Material Adverse Effect or prevent, materially delay or materially impair the ability of the Company to consummate the transactions contemplated by this Agreement.

SECTION 2.6. Company Reports: Financial Statements.

The Company has delivered or made available to CIENA each registration statement, report, proxy statement or information statement prepared by it since December 31, 2000 (the “Company Audit Date”), including (a) the Company’s Annual Report on Form 10-K for the year ended December 31, 2000 (b) the Company’s Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, June 30 and September 30, 2001 and (c) the Company’s definitive Proxy Statement for its 2001 Annual Meeting of Stockholders, each in the form (including exhibits, annexes and any amendments thereto) filed with the Securities and Exchange Commission (the “SEC”) on or prior to the date hereof (collectively, the “Company Reports”). As of their respective dates the Company Reports complied, and any Company reports, registration statements, proxy or information statements filed with the SEC subsequent to the date hereof (the “Subsequent Company Reports”) will comply, as to form in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the SEC. As of their respective dates, the Company Reports did not, and any Subsequent Company Reports will not, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements made therein, in the light of the circumstances under which they were made, not misleading. Each of the consolidated balance sheets included in or incorporated by reference into the Company Reports and Subsequent Company Reports (including the related notes and schedules) fairly presents, or will fairly present, in all material respects, the consolidated financial position of the Company and its Subsidiaries as of its date and each of the consolidated statements of income and of changes in financial position included in or incorporated by reference into the Company Reports and Subsequent Company Reports (including any related notes and schedules) fairly presents, or will fairly present, in all material respects, the consolidated results of operations, retained earnings and changes in financial position, as the case may be, of the Company and its Subsidiaries for the periods set forth therein (subject, in the case of unaudited statements, to notes and normal year-end audit adjustments), in each case in accordance with generally accepted accounting principles (“GAAP”) consistently applied during the periods involved, except as may be noted therein.

SECTION 2.7. Absence of Certain Changes or Events.

Except as disclosed in the Company Reports, since the Company Audit Date, there has been no event or set of circumstances that has resulted in or would be reasonably likely to result in a Company Material Adverse Effect. Except as disclosed in the Company Reports or as set forth on **Schedule 2.7**, since the Company Audit Date, the Company and each of its Subsidiaries 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 its Assets; (e) sold, exchanged, transferred or otherwise disposed of any of its 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 the Company Audit Date, except as disclosed in the Company Reports or set forth in **Schedule 2.7**, there has not been: (a) any change in the financial condition, assets, liabilities, personnel policies or practices, or contracts or business of the Company or any of its Subsidiaries or in its relationships with suppliers, customers, licensors, licensees, distributors, lessors or others, except changes on the ordinary course of business (it being understood that the Company has incurred losses from operations); (b) 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; (c) any discharge or satisfaction of any Lien or payment of any liability or obligation other than current liabilities in the ordinary course of business; or (d) 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.

The Company or a Subsidiary 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 and each of its Subsidiaries 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 or any of its Subsidiaries 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 or any of its Subsidiaries is held, operated or managed by a third party. The Company or a Subsidiary 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 or a Subsidiary 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, except to the extent that the failure to do so would not have a Company Material Adverse Effect. All necessary governmental approvals required to be obtained by the Company or any Subsidiary 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 and each of its Subsidiaries has performed in all material respects all obligations thereunder required to be performed by such entity to date. Neither the Company nor any Subsidiary is 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 any Subsidiary, or to the Company's Knowledge, a party other than the Company.

SECTION 2.10. Material Contracts.

All of the Material Contracts of the Company and its Subsidiaries that are required to be described in the Company Reports or to be filed as exhibits thereto are described in the Company Reports or filed as exhibits thereto and are in full force and effect in all material respects, except where the failure to be in full force and effect would not have, or reasonably be expected to result in, a Company Material Adverse Effect. Neither the Company nor any of its Subsidiaries nor, to the knowledge of the Company, any other party is in breach of or in default under any such Contract except for such breaches and defaults as individually or in the aggregate have not had and would not be reasonably likely to have a Company Material Adverse Effect. Except as disclosed on **Schedule 2.10**, neither the Company nor any of its Subsidiaries is party to any agreement containing any provision or covenant limiting in any material respect the ability of the Company or any of its Subsidiaries to (a) sell any products or services of or to any other person, (b) engage in any line of business or (c) compete with or to obtain products or services from any person or limiting the ability of any person to provide products or services to the Company or any of its Subsidiaries. The Company has delivered or made available to CIENA all Material Contracts which would be required to be filed or incorporated by reference as exhibits to the Company's 2001 Annual Report on Form 10-K under the Exchange Act were such Report filed on the date hereof.

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 or any Subsidiary (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 and its Subsidiaries as now conducted. To the Company's Knowledge, there is no 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 and its Subsidiaries. The Company has delivered or 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 its Subsidiaries and consistent with its present use, (ii) is available to the Company and its Subsidiaries for immediate use in the conduct of their business and operations, and (iii) to the Company's Knowledge complies in all material respects with all applicable building or zoning codes and in the regulations of any Governmental Entity having jurisdiction.

SECTION 2.12. Environmental Matters.

(a) The Company and each of its Subsidiaries has complied in all material respects with all Environmental Laws. To the Company's Knowledge, there are no pending or threatened, actions, suits, claims, legal proceedings or other proceedings against the Company or any of its Subsidiaries based on any Environmental Laws, and neither the Company nor any of its Subsidiaries has 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 or any of its Subsidiaries 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 or any of its Subsidiaries' activities involving Hazardous Materials.

(b) The Company and each of its Subsidiaries has been duly issued, and currently has all permits, licenses, certificates and approvals required to be maintained by it under any Environmental Law with respect to the use of the Real Property by it. 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 by the Company or any Subsidiary or any other material regulated by such permits, licenses, certificates or approvals.

(c) To the Company's knowledge, 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 disclosed in the Company Reports or **Schedule 2.13**, there is no action, suit, investigation, claim, arbitration or litigation pending or, to the Company's Knowledge, threatened against or involving the Company, any of its Subsidiaries, or any of their Assets, at law or in equity, or before or by any court, arbitrator or Government Entity that would reasonably be expected to result in a Company Material Adverse Effect. Neither the Company nor any of its Subsidiaries is operating under, or 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 or any Subsidiary 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 does the Company have Knowledge 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.

Except as disclosed in **Schedule 2.14**, the Company and each of its Subsidiaries is in compliance in all material respects with all Laws applicable to its Assets and its business and operations, including all Laws applicable to the Company's and each Subsidiary's relationship with its employees.

SECTION 2.15. Intellectual Property.

(a) The Company or one or more Subsidiaries has all right, title, interest and license rights necessary to use all trademarks, tradenames, service marks, trade secrets, know-how, copyrights, software, and, to the Company's knowledge, patents, ("Intellectual Property Rights") used in the business of the Company and its Subsidiaries as currently conducted. Except as set forth on **Schedule 2.15**, there are no claims or demands against the Company by any other Person or notice letters received by the Company or any Subsidiary pertaining to any of such Intellectual Property Rights and no material proceedings have been instituted, or are pending or to the Knowledge of the Company, threatened, which challenge the rights of the Company or any of its Subsidiaries in respect thereof, except as described in the Company Reports. To the Knowledge of the Company, the Company or one or more Subsidiaries has the right to use, without infringing in any material respect the intellectual property 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 material patents, patent applications, registered trademarks, trademark applications and registrations and registered copyrights owned or registered in the name of the Company or any Subsidiary and used by the Company or any Subsidiary in its business as currently conducted. 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 material licenses or other agreements under which the Company or any of its Subsidiaries 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 any of its Subsidiaries 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 or made available to CIENA.

(d) All material licenses or other agreements under which the Company or any of its Subsidiaries has granted rights to others in Intellectual Property Rights owned or licensed by the Company or any of its Subsidiaries are listed on **Schedule 2.15(d)**. All of such licenses or other agreements are in full force and effect, and there is no material default by the Company or any of its Subsidiaries, 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 made available to CIENA.

(e) The Company and each of its Subsidiaries 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. Except as disclosed on **Schedule 2.15(e)**, the Company and each of its Subsidiaries has required all professional and technical employees and independent contractors having access to valuable non-public information of the Company and each of its Subsidiaries 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 or any of its Subsidiaries.

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(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 and each of its Subsidiaries do not infringe any Intellectual Property Rights of any other Person. No proceeding charging the Company or any of its Subsidiaries 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, except as disclosed in the Company Reports, there exists no unexpired patent or patent application that includes claims that would be infringed by the products, activities or business of the Company or any of its Subsidiaries. To the Knowledge of the Company, neither the Company nor any of its Subsidiaries is making any unauthorized use of any confidential information or trade secrets of any Person, including without limitation, any customer of the Company or any Subsidiary, or any past or present employee of the Company or any Subsidiary. Except for customer contracts in the ordinary course of business and confidentiality agreements by employees with former employers, neither the Company nor any of its Subsidiaries 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. To the Knowledge of the Company, the activities of its employees on behalf of the Company and its Subsidiaries do not violate any such agreements or arrangements.

(g) To the knowledge of the Company, none of the current officers and employees of the Company or any Subsidiary has any issued patent or patent application pending for any device, process, design or invention of any kind used (currently or in the 12 months prior to the date hereof) by the Company or any Subsidiary, or is intended to be used by the Company or any Subsidiary or its successor in the future, which patent or patent application has not been assigned to the Company or any Subsidiary, with such assignment duly recorded in the patent office of the relevant jurisdiction. Binding, written assignments to the Company or any Subsidiary have been executed by all inventors for those patents and patent applications set forth on **Schedule 2.15(b)**.

SECTION 2.16. Taxes and Assessments.

The Company and each of its Subsidiaries has (i) filed all Tax Returns it was required to file and 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 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 or any Subsidiary 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. The Tax Returns of the Company and each of its Subsidiaries have never been audited by federal, state, local, or foreign authorities. There are no Liens on any property of the Company or any Subsidiary that arose in connection with any failure (or alleged failure) to pay any material Tax when due. The Company and each of its Subsidiaries 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 Taxes of the Company and each of its Subsidiaries (i) did not, as of the most recent Company Report that included financial statements exceed the reserve for Tax Liability (rather than any reserve for deferred Taxes established to reflect timing differences between book and Tax income) set forth in the most recent Company Report (rather than any notes thereto) and (ii) do not exceed that reserve as adjusted for the passing of time through the Effective Time.

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), and any benefit program or policy providing for bonuses, incentive compensation, vacation pay, severance pay, insurance restricted stock, stock options, employee discounts, company cars, tuition reimbursement or any other perquisite or benefit (including, without limitation, any fringe benefit under Section 132 of the Code), applicable to current or former employees or individual consultants of the Company and each Subsidiary to which it has contributed or under which it has any material liability (collectively, the "Company Benefit Plans"). The Company has delivered or made available to CIENA, to the extent they exist, a true and correct copy of (i) the three most recent annual reports (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

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located. No Company Benefit Plan is or has ever been a “defined benefit plan” (as such term is defined in Section 3(35) of ERISA), a Voluntary Employees’ Beneficiary Association (within the meaning of Section 501(c)(9) of the Code) or an employee stock ownership plan (within the meaning of Section 4975(e)(7) of the Code). No Company Benefit Plan is a “multiemployer plan” as such term is defined in Section 3(37) of ERISA. No Company Benefit Plan provides for post-retirement medical or life insurance to current, former or retired employees of the Company (other than legally required health care continuation coverage). All Company Benefit Plans subject to the Laws of any jurisdiction other than the United States of America or one of its political subdivisions comply with, and have been administered in compliance with, the Laws of such foreign jurisdiction.

(b) **Compliance.** Except as disclosed on **Schedule 2.17(b)**, the Company and each Subsidiary 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 Worker Adjustment and Retraining Notification Act (the “WARN Act”), the Americans with Disabilities Act, the Securities Act, the Exchange Act, and all other Laws pertaining to the Company Benefit Plans or relations with employees, and other employee or employment related benefits, and all premiums and assessments relating to all Company Benefit Plans. To the Company’s Knowledge, all Company Benefit Plans that are subject to Section 4980B(f) of the Code and Sections 601 through 609 of ERISA comply with and have been administered in compliance with the health care continuation coverage requirements for tax-favored status under Section 4980B(f) of the Code, Sections 601 through 609 of ERISA and all final Treasury Regulations under Section 4890B of the Code explaining those requirements and all other applicable Laws regarding continuation and/or conversion coverage. Neither the Company nor any Subsidiary has any 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. Neither the Company nor any Subsidiary has any 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 Company Benefit Plan or any other Law relating to the Company’s or its Subsidiaries’ relationships with their employees, and, to the Knowledge of the Company, no such action has been threatened and there exist no facts that could reasonably be expected to give rise to such a claim. All Company Benefit Plans intended to be qualified under Section 401(a) of the Code are so qualified. Except as disclosed on **Schedule 2.17(b)**, no Company Benefit Plan, individually or collectively, provides for any payment by the Company or any Subsidiary to any employee or other service provider that is not deductible under Section 162(a)(1) or 404 of the Code or that is an “excess parachute payment” pursuant to Section 280G of the Code.

(c) **Collective Bargaining Agreements.** There are no collective bargaining agreements applicable to the Company’s or any of its Subsidiary’s employees and neither the Company nor any of its Subsidiaries has any 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 or any of its Subsidiaries.

(d) **Employee Information.** **Schedule 2.17(d)** sets forth a list of the names, positions and rates of compensation of all officers, directors, employees and individual consultants of the Company and its Subsidiaries, as of the date hereof, showing each such person’s name, positions, and annual remuneration, bonuses and material fringe benefits for the current fiscal year and the most recently completed fiscal year. With respect to any persons employed by the Company or any of its Subsidiaries, the Company and its Subsidiaries are in compliance with all Laws respecting employment conditions and practices, have withheld all amounts required by any applicable Laws to be withheld from wages.

(e) **Employment Practices.** Except as disclosed on **Schedule 2.17(e)**, with respect to any persons employed by the Company or any of its Subsidiaries, (i) neither the Company nor any Subsidiary has engaged in any unfair labor practice within the meaning of the National Labor Relations Act or violated any legal requirement prohibiting discrimination on the basis of race, color, national origin, sex, religion, age, marital status, handicap, or any other classification or status protected by Law, 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 or any Subsidiary 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

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Company Benefit Plan required to be filed with any Governmental Entity or distributed to any participant of such plan have been duly filed on a timely basis or distributed.

(g) **Immigration Laws.** To the Company's Knowledge, the Company and each of its Subsidiaries 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 in the Company Reports, since the Company Audit Date no event has occurred that would be required to be reported by the Company pursuant to Item 404 of Regulation S-K as promulgated by the SEC in a proxy statement for an annual meeting of stockholders.

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 and each Subsidiary, all of which are in full force and effect as of the date hereof. The Company has delivered to CIENA true and correct copies of all policies requested by CIENA. Except as disclosed on **Schedule 2.19**, all such policies insure against risks of the kind customarily insured against and in amounts customarily carried by corporations similarly situated. All premiums due and payable on all such policies have been paid. A true and complete list of all material claims made since December 31, 2000 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 or any Subsidiary, except for fees to be paid by the Company to Goldman, Sachs & Co. pursuant to an engagement letter between the Company and Goldman, Sachs & Co dated January 20, 2002, a copy of which has been made available to CIENA.

SECTION 2.21. Disclosure.

The Company has provided CIENA with all applicable or relevant documents and information which CIENA has requested in writing. True and complete copies of all documents listed in the Schedules to this Agreement have been made available or provided to CIENA. The books of account, minute books, stock record books and other financial and corporate records of the Company and each Subsidiary, all of which have been made available to CIENA, are 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 included in the Company Reports. The minute books of the Company and each Subsidiary 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 each Subsidiary, 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 or any Subsidiary, nor any of their 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 or any Subsidiary) 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 or any Subsidiary (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 or any Subsidiary 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 and each Subsidiary is not in any manner dependent upon the making or receipt of such unlawful payments, discounts or other inducements.

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SECTION 2.23. Customers and Suppliers.

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 or any Subsidiary with (y) any single customer or any group of affiliated customers who represented five percent (5%) or more of the consolidated revenues of the business of the Company during the twelve months ended December 31, 2001, 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 or any Subsidiary during the twelve months ended December 31, 2001, or (ii) any existing condition, state of facts or circumstances that to the Knowledge of the Company will cause the Company or any Subsidiary or any of such customers to terminate their relationships or for any prospective customers to refuse to consider a prospective relationship. To the Knowledge of the Company, none of the business or prospective business of the Company or any Subsidiary 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.

SECTION 2.24. Takeover Statutes.

The Board of Directors of the Company has taken all necessary action so that no restrictive provision of any “fair price”, “moratorium,” “control share,” or other similar anti-takeover statute or regulation, including, but not limited to Section 203 of the DGCL (each a “Takeover Statute”) or restrictive provision of any applicable anti-takeover provision in the Company Certificate or bylaws of the Company or any shareholder rights or similar plan, is, or at the Effective Time will be, applicable to the Company, the Shares, the Merger or any transaction contemplated by this Agreement or the Stockholder Agreements. As currently contemplated, the Merger will not constitute a “Change of Control” for purposes of the provisions of Article XIV of the Indenture for the Notes.

SECTION 2.25. Reorganization under Section 368(a) of the Code.

The Company has not taken any actions which would prevent the Merger from qualifying as a reorganization under Section 368(a) of the Code.

SECTION 2.26. Fairness Opinion.

The Company’s Board of Directors has received an opinion from Goldman, Sachs & Co., dated the date hereof, to the effect that, as of the date hereof, the Exchange Ratio is fair to the Company’s stockholders from a financial point of view.

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 and each of its Subsidiaries is a corporation or other entity duly organized, validly existing and in good standing under the laws of its respective jurisdiction of organization. Each of CIENA and its Subsidiaries 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. Each of CIENA and its Subsidiaries 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, except for those jurisdictions in which the failure to be so qualified and in good standing would not have a CIENA Material Adverse Effect.

SECTION 3.2. Certificate of Incorporation and Bylaws.

CIENA has previously made available to Company complete and correct copies of the CIENA Certificate and its 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. CIENA is not in violation of any of the provisions of the CIENA Charter Documents.

SECTION 3.3. Authority.

(a) 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, except approval by holders of a majority of the outstanding shares of CIENA Common Stock (the

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“CIENA Requisite Vote”). 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.

(b) The Board of Directors of CIENA, at a meeting duly called and held (i) has approved this Agreement and the Merger and the other transactions contemplated thereby and (ii) has resolved to submit the proposed Merger to, and recommend approval thereof by, the stockholders of CIENA.

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 CIENA Charter Documents, (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) Other than the filings and/or notices pursuant to or required by (i) the Hart-Scott-Rodino Act and Applicable Foreign Competition Laws, (ii) the Exchange Act, (iii) the Securities Act, (iv) state securities or “blue-sky” laws, (v) Section 251 of the DGCL and (vi) Nasdaq, the execution and delivery of this Agreement by CIENA and the consummation by CIENA of the Merger and the other transactions contemplated hereby do not require any filings, notices, consents or approvals with or by any court, administrative agency, commission, government or regulatory authority, domestic or foreign, except those that the failure to make or obtain would not, individually or in the aggregate, be reasonably likely to have a CIENA Material Adverse Effect or prevent, materially delay or materially impair the ability of CIENA to consummate transactions contemplated by this Agreement.

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 fees to be paid by CIENA to Morgan Stanley.

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 registration statements, reports, proxy statements or information statements (the “CIENA SEC Documents”) required to be filed by it with the SEC since October 31, 2001 (the “CIENA Audit Date”). As of their respective dates the CIENA SEC Documents complied, and any CIENA SEC Documents filed with the SEC subsequent to the date hereof will comply, as to form in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the SEC. As of their respective dates, the CIENA SEC Documents did not, and any CIENA SEC Documents filed with the SEC subsequent to the date hereof will not, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements made therein, in the light of the circumstances under which they were made, not misleading. Each of the consolidated balance sheets included in or incorporated by reference into the CIENA SEC Documents (including the related notes and schedules) fairly presents, or will fairly present, in all material respects, the consolidated financial position of CIENA and its Subsidiaries as of its date and each of the consolidated statements of income and of changes in financial position included in or incorporated by reference into the CIENA SEC Documents (including any related notes and schedules) fairly presents, or will fairly present, in all material respects, the consolidated results of operations, retained earnings and changes in financial position, as the case may be, of CIENA and its Subsidiaries for the periods set forth therein (subject, in the case of unaudited statements, to notes and normal year-end audit adjustments), in each case in accordance with GAAP consistently applied during the periods involved, except as may be noted therein.

SECTION 3.8. Litigation.

Except as disclosed in the CIENA SEC Documents, there is no action, suit, investigation, claim, arbitration or litigation pending or, to the Knowledge of CIENA, threatened against or involving CIENA or its Subsidiaries or their Assets or the business and operations of any of CIENA or its Subsidiaries, at law or in equity, or before or by any court,

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arbitrator or Government Entity that would reasonably be expected to result in a CIENA Material Adverse Effect. Neither CIENA nor any of its Subsidiaries is operating under or is 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 or any Subsidiary 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 does CIENA have Knowledge of any intent or proposal to give any such notice or commence any such proceeding.

SECTION 3.9. Capitalization.

(a) The authorized capital stock of CIENA consists of 980,000,000 shares of common stock, \$0.01 par value per share, of which 328,730,443 shares are issued and outstanding on the date hereof, and 20,000,000 shares of preferred stock, par value \$0.01 per share, none of which are issued and outstanding on the date hereof. CIENA 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 CIENA, or obligating CIENA to issue or sell any shares of capital stock of, or other equity interests in CIENA, including any securities directly or indirectly convertible into or exercisable or exchangeable for any capital stock or other equity securities of CIENA except that as of the date hereof, there were 48,194,551 shares reserved for issuance pursuant to options outstanding under CIENA's Amended and Restated 1994 Stock Option Plan, the 1996 Outside Directors Stock Option Plan, the 1999 Non-Officer Incentive Stock Plan, the Cyras 1998 Stock Option Plan, the Omnia 1997 Stock Plan and the Lightera 1998 Stock Option Plan (collectively, the "CIENA Option Plans"), 3,264,733 shares reserved for issuance pursuant to CIENA's Employee Stock Purchase Plan (the "ESPP" and together with CIENA Option Plans, the "CIENA Stock Plans"), and 6,610,752 shares issuable upon conversion of CIENA's 3.75% Convertible Subordinated Notes due February 1, 2008 (the "CIENA Notes") and 1,037,055 shares issuable upon conversion of Cyras Systems, LLC 4.5% Convertible Subordinated Notes due August 15, 2005 (the "Cyras Notes"). Except for the CIENA Notes and Cyras Notes, CIENA 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 CIENA on any matter. There are no outstanding obligations of CIENA 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 CIENA to repurchase unvested shares of CIENA Common Stock, at the original purchase price paid per share, upon the holder's termination of service or employment with CIENA. All of the issued and outstanding shares of CIENA Common 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. Each of the outstanding shares of capital stock or other securities of each of CIENA's Subsidiaries is duly authorized, validly issued, fully paid and non-assessable and is owned by CIENA or a CIENA Subsidiary, free and clear of any lien, pledge, security interest or other Encumbrance. Except as disclosed herein, no shares of capital stock of CIENA have been reserved for any purpose.

(b) Except as disclosed in the CIENA SEC Documents, CIENA has no outstanding material indebtedness for borrowed money and all such indebtedness except as is set forth on **Schedule 3.9** is prepayable in full, without premium or penalty, at any time, except as otherwise described thereon.

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.

Except as disclosed in the CIENA SEC Documents, since the CIENA Audit Date, there has been no event or set of circumstances that has resulted in or would be reasonably likely to result in a CIENA Material Adverse Effect. Except as disclosed in the CIENA SEC Documents or as set forth on **Schedule 3.11**, since the CIENA Audit Date, CIENA and each of its Subsidiaries 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 CIENA'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 its Assets; (e) sold, exchanged, transferred or otherwise disposed of any of its 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

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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 the CIENA Audit Date, except as disclosed in the CIENA SEC Documents or set forth in **Schedule 3.11**, there has not been: (a) any change in the financial condition, assets, liabilities, personnel policies or practices, or contracts or business of CIENA or any of its Subsidiaries or in its relationships with suppliers, customers, licensors, licensees, distributors, lessors or others, except changes on the ordinary course of business (it being understood that CIENA has incurred losses from operations); (b) any increase in the compensation or benefits payable or to become payable by CIENA to any of the directors, officers, consultants or employees of CIENA, other than salary increases in connection with customary performance reviews and customary bonuses consistent with past practices; (c) any discharge or satisfaction of any Lien or payment of any liability or obligation other than current liabilities in the ordinary course of business; or (d) any agreement to do any of the foregoing, other than negotiations with CIENA and its representatives regarding the transactions contemplated by this Agreement.

SECTION 3.12. Ownership and Condition of the Assets.

CIENA or a Subsidiary 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 CIENA and each of its Subsidiaries 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, except to an extent that would not have a CIENA Material Adverse Effect.

SECTION 3.13. Material Contracts.

All of the Material Contracts of CIENA and its Subsidiaries that are required to be described in the CIENA SEC Documents or to be filed as exhibits thereto are described in the CIENA SEC Documents or filed as exhibits thereto and are in full force and effect in all material respects, except where the failure to be in full force and effect would not have, or reasonably be expected to result in, a CIENA Material Adverse Effect. Neither CIENA nor any of its Subsidiaries nor, to the knowledge of CIENA, any other party is in breach of or in default under any such Contract except for such breaches and defaults as individually or in the aggregate have not had and would not be reasonably likely to have a CIENA Material Adverse Effect. Neither CIENA nor any of its Subsidiaries is party to any agreement containing any provision or covenant limiting in any material respect the ability of CIENA or any of its Subsidiaries to (a) sell any products or services of or to any other person, (b) engage in any line of business or (c) compete with or to obtain products or services from any person or limiting the ability of any person to provide products or services to CIENA or any of its Subsidiaries. CIENA has delivered or made available to the Company all Material Contracts which would be required to be filed or incorporated by reference to as exhibits to an Annual Report on Form 10-K under the Exchange Act were such Report filed on the date hereof.

SECTION 3.14. Environmental Matters.

CIENA and each of its Subsidiaries has complied in all material respects with all Environmental Laws. There are no pending or, to CIENA's Knowledge, threatened, actions, suits, claims, legal proceedings or other proceedings against CIENA or any of its Subsidiaries based on any Environmental Laws, and neither CIENA nor any of its Subsidiaries has received any notice of any complaint, order, directs, 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 used or held by CIENA or any Subsidiary 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) used or held by CIENA or any Subsidiary 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 used or held by CIENA or any Subsidiary; (iv) any facility operations or procedures of CIENA or any of its Subsidiaries which do not conform to requirements of the Environmental Laws; or (v) any violation of Environmental Laws at any part of the real property used or held by CIENA or any Subsidiary or otherwise arising from CIENA's or any of its Subsidiaries' activities involving Hazardous Materials.

SECTION 3.15. Compliance with Laws.

CIENA and each of its Subsidiaries is in compliance in all material respects with all Laws applicable to its Assets and its business and operations, including all Laws applicable to CIENA's and each Subsidiary's relationship with its employees.

SECTION 3.16. Fairness Opinion.

CIENA's Board of Directors has received an opinion from Morgan Stanley & Co. Incorporated dated as of the date hereof to the effect that, as of the date hereof, the Exchange Ratio is fair from a financial point of view to CIENA.

SECTION 3.17. Intellectual Property.

(a) CIENA or one or more Subsidiaries has all right, title, interest and license rights necessary to use all trademarks, tradenames, service marks, trade secrets, know-how, copyrights, software and, to CIENA's knowledge, patents, used in the business of CIENA and its Subsidiaries as currently conducted. Except as set forth on **Schedule 3.17**, there are no claims or demands against CIENA by any other Person or notice letters received by CIENA or any Subsidiary pertaining to any of such intellectual property rights and no material proceedings have been instituted, or are pending or to the Knowledge of CIENA, threatened, which challenge the rights of CIENA or any of its Subsidiaries in respect thereof, except as described in the CIENA SEC Documents. To the Knowledge of CIENA, CIENA or one or more Subsidiaries has the right to use, without infringing in any material respect the intellectual property 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 3.17(b)** lists all material patents, patent applications, registered trademarks, trademark applications and registrations and registered copyrights owned or registered in the name of CIENA or any Subsidiary or used by CIENA or any Subsidiary in its business as currently conducted. 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, 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 3.17(b)**.

(c) All material licenses or other agreements under which CIENA or any of its Subsidiaries is granted rights in intellectual property rights are listed on **Schedule 3.17(c)**. All such licenses or other Agreements are in full force and effect, there is no material default by CIENA or any of its Subsidiaries or, to CIENA's Knowledge, any party thereto. To the Knowledge of CIENA, 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 made available to the Company.

(d) All material licenses or other agreements under which CIENA or any of its Subsidiaries has granted rights to others in intellectual property rights owned or licensed by CIENA or any of its Subsidiaries are listed on **Schedule 3.17(d)**. All of such licenses or other agreements are in full force and effect, and there is no material default by CIENA or any of its Subsidiaries, or to CIENA's Knowledge, by any party thereto. True and complete copies of all such licenses or other agreements, and any amendments thereto, have been made available to the Company.

(e) CIENA and each of its Subsidiaries 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. CIENA and each of its Subsidiaries has required all professional and technical employees and independent contractors having access to valuable non-public information of CIENA and each of its Subsidiaries to execute agreements under which such persons are required to maintain the confidentiality of such information and appropriately restricting the use thereof. CIENA does not have Knowledge of any infringement by others of any intellectual property rights of CIENA or any of its Subsidiaries.

(f) To the Knowledge of CIENA, except as set forth on **Schedule 3.17(f)**, the present business, activities and products of CIENA and each of its Subsidiaries do not infringe any intellectual property rights of any other Person. Except as disclosed in **Schedule 3.17(f)**, no proceeding charging CIENA or any of its Subsidiaries with infringement of any intellectual property rights has been filed or, to the Knowledge of CIENA, is threatened or likely to be filed. To the Knowledge of CIENA, except as disclosed in the CIENA SEC Documents, there exists no unexpired patent or patent application that includes claims that would be infringed by the products, activities or business of CIENA or any of its Subsidiaries. To the Knowledge of CIENA, neither CIENA nor any of its Subsidiaries is making any unauthorized use of any confidential information or trade secrets of any Person, including without limitation, any customer of CIENA or any Subsidiary, or any past or present employee of CIENA or any Subsidiary. Except for customer contracts in the ordinary course of business and confidentiality agreements by employees with former employers, neither CIENA nor any of its Subsidiaries nor, to the Knowledge of CIENA, any of its employees have any agreements or arrangements with any Persons other than CIENA related to confidential information or trade secrets of such Persons or restricting any such employee's engagement in business activities of any nature. To CIENA's Knowledge, the activities of its employees on behalf of CIENA and its Subsidiaries do not violate any such agreements or arrangements.

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(g) To the knowledge of CIENA, none of the current officers and employees of CIENA or any Subsidiary has any issued patent or patent application pending for any device, process, design or invention of any kind used (currently or in the 12 months prior to the date hereof) by CIENA or any Subsidiary, or is intended to be used by CIENA or any Subsidiary or its successor in the future, which patent or patent application has not been assigned to CIENA or any Subsidiary, with such assignment duly recorded in the patent office of the relevant jurisdiction.

SECTION 3.18. Taxes and Assessments.

Except as disclosed in **Schedule 3.18**, CIENA and each of its Subsidiaries has (i) filed all Tax Returns it was required to file and 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 payment of any Tax; (ii) received no written notice of, nor does CIENA 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 CIENA or any Subsidiary 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. The Tax Returns of CIENA and each of its Subsidiaries have never been audited by federal, state, local, or foreign authorities. There are no Liens on any property of CIENA or any Subsidiary that arose in connection with any failure (or alleged failure) to pay any material Tax when due. CIENA and each of its Subsidiaries 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 Taxes of CIENA and each of its Subsidiaries (i) did not, as of the most recent CIENA Report that included financial statements exceed the reserve for Tax Liability (rather than any reserve for deferred Taxes established to reflect timing differences between book and Tax income) set forth in the most recent CIENA Report (rather than any notes thereto) and (ii) do not exceed that reserve as adjusted for the passing of time through the Effective Time.

SECTION 3.19. Disclosure.

CIENA has provided the Company with all applicable or relevant documents and information which the Company has requested in writing. True and complete copies of all documents listed in the Schedules to this Agreement have been made available or provided to the Company. The books of account, minute books, stock record books and other financial and corporate records of CIENA and each Subsidiary, all of which have been made available to the Company, are 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 included in the CIENA SEC Documents. The minute books of CIENA and each Subsidiary 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 CIENA and each Subsidiary, 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 3.20. Customers and Suppliers.

CIENA does not have Knowledge of (i) any termination or cancellation of (or any intent to terminate or cancel) the business relationship of CIENA or any Subsidiary with (y) any single customer or any group of affiliated customers who represented five percent (5%) or more of the consolidated revenues of the business of CIENA during the twelve months ended October 31, 2001, 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 CIENA or any Subsidiary during the twelve months ended October 31, 2001, or (ii) any existing condition, state of facts or circumstances that to the Knowledge of CIENA will cause CIENA or any Subsidiary or any of such customers to terminate their relationships or for any prospective customers to refuse to consider a prospective relationship. To the Knowledge of CIENA, none of the business or prospective business of CIENA or any Subsidiary 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 IV ADDITIONAL REPRESENTATIONS AND WARRANTIES OF CIENA WITH RESPECT TO MERGER SUB

CIENA further represents and warrants to the Company as follows:

SECTION 4.1. Organization and Qualification.

If the Merger shall be structured as a reverse triangular merger pursuant to **Section 1.1(d)**, Merger Sub will be a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware, with the requisite power and authority to own, lease and operate its Assets and properties, to carry on its business and to perform the terms of this Agreement and the transactions contemplated hereby. Merger Sub will be 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. No Prior Activities.

Except for obligations incurred in connection with its incorporation or the negotiation and consummation of this Agreement and the transactions contemplated hereby, Merger Sub will not incur any obligation or liability nor engage in any business or activity of any type or kind whatsoever or enter into any agreement or arrangement with any other Person. At the Effective Time, all of the outstanding capital stock of Merger Sub will be directly owned by CIENA.

**ARTICLE V
CONDUCT PENDING CLOSING**

SECTION 5.1. Conduct of Business Pending Closing.

From the date hereof until the Closing, the Company and CIENA shall, and the Company shall cause each of its Subsidiaries to:

- (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 it the services of its present officers and employees, and (c) to preserve for it the goodwill of its suppliers, customers and others having business relations with it.

SECTION 5.2. Prohibited Actions Pending Closing.

(a) Unless approved by the Company in writing, from the date hereof until the Closing, CIENA shall not:

- (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 Common 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;
- (ii) 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 options or purchase agreements, redemptions or purchases of CIENA Notes or Cyras Notes and tenders for outstanding stock options;
- (iii) acquire or agree to acquire by merging or consolidating with, or by purchasing any equity interest in or a portion of the assets of, or by any other matter, any business or any corporation, partnership, association or other business organization or division thereof; or otherwise acquire or agree to acquire any assets which are material, individually or in the aggregate, to the business of CIENA or enter into any material joint venture, strategic relationships or alliances; provided, that CIENA shall not be prohibited under this clause (iii) from undertaking any of the activities described herein if the total consideration for such acquisition does not exceed 34 million shares of CIENA Common Stock; provided further, that if the consideration for such acquisition does not consist solely of CIENA Common Stock, an effective number of shares for purposes of this **Section 5.2(a)(iii)** shall be determined by dividing the consideration by the average of the closing prices for the CIENA Common Stock as reported on Nasdaq for the five trading days ending on the trading day prior to the day on which CIENA gives notice of the proposed acquisition to the Company;
- (iv) amend or otherwise change the CIENA Charter Documents unless such amendment or change would not materially affect the rights or privileges of the CIENA Common Stock; or

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(v) agree in writing or otherwise to take any of the actions described in **Sections 5.2(a)(i)** through **(iv)** above.

(b) 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 and each of its Subsidiaries shall operate in the ordinary course of business and shall not:

(i) amend or otherwise change the Company Certificate or the bylaws of the Company;

(ii) issue or sell or authorize for issuance or sale, or grant any options or make other agreements with respect to, any shares of its capital stock or any other of its securities, other than the issuance of stock upon the exercise of stock options and warrants outstanding on the date hereof, the issuance of stock pursuant to the ESPP and other than option grants in the amounts and to the persons identified on **Schedule 5.2(b)(ii)** hereto or option grants made to prospective employees of the Company in an amount not to exceed 10,000 for each individual employee and 100,000 in the aggregate with respect to all such prospective employees and, provided, however, if the Closing Date occurs on or after May 20, 2002, the Company may issue options to purchase shares of Company Common Stock (a) under the terms and conditions of its Offer to Exchange dated October 19, 2001 to certain employees who remain continuously employed by the Company through the grant date provided that the vesting provisions of such options are in accordance with the terms and conditions of the Offer to Exchange and (b) to the individuals and in the amounts listed on **Schedule 5.9(k)** provided the individual remains continuously employed by the Company through the grant date, subject to the terms and conditions described on **Schedule 5.9(k)**;

(iii) 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;

(iv) 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;

(v) 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;

(vi) (x) 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;

(y) enter into any contract or agreement other than in the ordinary course of business, consistent with past practice; or

(z) authorize any capital commitment or capital lease which is in excess of \$100,000 or authorize any capital expenditures which are, in the aggregate, in excess of \$100,000 or are not included in the Company's capital budget for 2002, a complete copy of which has been delivered to CIENA;

(vii) mortgage, pledge or subject to Encumbrance, any of its material Assets or properties or agree to do so, other than in the ordinary course of business, consistent with past practice;

(viii) 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);

(ix) 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 (x) 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, (y) the Company may make any amendments to existing employee benefit plans to the extent necessary to maintain their compliance with applicable Laws and (z) except as provided for in **Section 5.2(b)(ii)** herein;

(x) except as required by GAAP, 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);

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(xi) make any Tax election or settle or compromise any federal, state, local or foreign income material Tax liability in excess of \$50,000;

(xii) settle or compromise any material pending or threatened suit, action or claim;

(xiii) pay, discharge or satisfy any claim, liability or obligation (absolute, accrued, asserted or unasserted, contingent or otherwise), including the purchase, amendment or discharge of any Notes, 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;

(xiv) 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;

(xv) initiate any litigation against any third party;

(xvi) adopt any shareholder rights or similar plans; or

(xvii) agree in writing or otherwise to take any of the actions described in **Sections 5.2(b)(i)** through **(xvi)** above.

SECTION 5.3. Access; Documents; Supplemental Information.

(a) From and after the date hereof until the Closing, and subject to the limitations of applicable Laws, each of CIENA and the Company shall afford, and, with respect to clause (ii) below, shall use its reasonable best efforts to cause its independent certified public accountants to afford, (i) to the officers, independent certified public accountants, counsel and other representatives the other party, upon reasonable notice, free and full access at all reasonable times to the properties, books and records, including its and its Subsidiaries' tax returns filed and in preparation and the right to consult with its and its Subsidiaries' officers, employees, accountants, counsel and other representatives in order that the other party may have full opportunity to make such investigations as it shall deem necessary of its and its Subsidiaries' operations, properties, business, financial condition and prospects, (ii) to its independent certified public accountants, free and full access at all reasonable times to the work papers and other records of the independent accountants, and (iii) to the other party, such additional financial and operating data and other information as to its and its Subsidiaries' properties, operations, business, financial condition and prospects as the other party shall from time to time reasonably require; provided that any information and documents received by the other party or its representatives (whether furnished before or after the date of this Agreement) shall be held in confidence in accordance with the confidentiality agreement by and between CIENA and the Company dated January 29, 2002 (the "Confidentiality Agreement"), which, except for **Section 2(a)**, shall remain in full force and effect pursuant to the terms thereof as though the Confidentiality Agreement had been entered into by the parties on the date of this Agreement, notwithstanding the execution and delivery of this Agreement or the termination hereof; provided, that following a termination of this Agreement under **Sections 7.3(b)** or **7.4(b)** due to an uncured breach of a covenant or agreement, the party terminating the Agreement will not be bound by **Section 7** of the Confidentiality Agreement. Further, following termination of this Agreement for any reason, the terms of **Section 7** of the Confidentiality Agreement will be deemed to apply to all employees of CIENA and the Company, respectively.

(b) From the date of this Agreement through and including the Closing, each party will furnish to the other party 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 unless, in the opinion of counsel to a party, such furnishing of documents would be inappropriate due to privilege or other legal issues.

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 intentionally 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 for the purpose of facilitating 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) furnishing information in response to an unsolicited 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

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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) participating 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 receiving the advice of its financial advisor and outside legal counsel) that the Acquisition Proposal, if accepted, is reasonably likely to be consummated, (y) the Board of Directors of the Company determines in good faith (after receiving advice of its financial advisor) 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, taking into account the strategic benefit and long-term value to stockholders of both the Merger Consideration in the proposed Merger and the consideration offered in the Acquisition Proposal) 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 order to fulfill its fiduciary duties to the Company's stockholders 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 (other than a confidentiality agreement or an agreement providing solely for the advance of funds to pay the termination fee and expenses provided for in **Section 7.5**) during the term of this Agreement. Nothing contained in this Agreement shall prevent the Company or its Board of Directors from complying with Rule 14d-9 and 14e-2 promulgated under the Exchange Act with regard to an Acquisition Proposal. The Company shall advise CIENA of any Acquisition Proposal as soon as practicable following receipt thereof (including all of the material 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 as promptly as practicable in all material respects of the status of any discussions and Company Board actions regarding an Acquisition Proposal. "Acquisition Proposal" means any proposal for a merger or other business combination involving the acquisition of the Company by any Person other than CIENA or Merger Sub or any proposal or offer to acquire in any manner, directly or indirectly 10% or more of the equity securities, voting securities or Assets of the Company (except in connection with sales of products in the ordinary course of business). 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 agrees, as to itself and its Subsidiaries, that none of the information supplied or to be supplied by it or its Subsidiaries 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 joint proxy statement and prospectus (the "Prospectus/Proxy Statement") 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 Prospectus/Proxy Statement and any amendment or supplement thereto will, at the date of mailing to stockholders and at the times of the meetings of stockholders of the Company and CIENA 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. Stockholders Meetings.

(a) Whether or not the Board of Directors of the Company shall take any action permitted by the third sentence of this **Section 5.6(a)**, the Company shall cause a meeting of its stockholders (the "Company 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. Subject to the next sentence of this **Section 5.6(a)**, the Board of Directors of the Company shall (i) include in the Prospectus/Proxy Statement its recommendation in favor of adoption of the Merger Agreement (the "Company Board Recommendation") and the written opinion of Goldman, Sachs & Co., dated the date of this

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Agreement, to the effect that, as of the date hereof, the Exchange Ratio is fair, from a financial point of view, to the holders of Company Common Stock (the “Company Fairness Opinion”) and (ii) so long as the Board of Directors of the Company continues to make the recommendation described in clause (i) of this sentence, use its reasonable 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 Company Board Recommendation (or announce publicly 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 Company Board Recommendation (or publicly announce its intention to do so) and fail to include the Company Fairness Opinion, following three Business Days’ prior notice to CIENA, but only if (A) the Company has complied in all material respects with this Agreement, including **Section 5.4**, and (B) after receiving advice of its outside legal counsel, the Company Board of Directors determines in good faith that it is required to withdraw, amend or modify the Company Board Recommendation in order to satisfy its fiduciary duties to the stockholders of the Company under applicable law.

(b) Whether or not the Board of Directors of CIENA shall take any action permitted by the last sentence of this **Section 5.6(b)**, CIENA shall cause a meeting of its stockholders (the “CIENA Stockholders Meeting”), to be called and held as soon as practicable after the date of this Agreement, for the purpose of voting upon the approval of the Merger. Subject to the next sentence of this **Section 5.6(b)**, the Board of Directors of CIENA (i) shall include in the Prospectus/Proxy Statement its recommendation in favor of approval of the Merger (the “CIENA Board Recommendation”) and the written opinion of Morgan Stanley & Co. Incorporated, dated as of date hereof, to the effect that, as of the date hereof, the Exchange Ratio is fair, from a financial point of view, to CIENA (the “CIENA Fairness Opinion”) and (ii) so long as the Board of Directors of CIENA continues to make the recommendation described in clause (i) of this sentence, shall use its reasonable best efforts to obtain the necessary vote in favor of the approval of the Merger by its stockholders. The Board of Directors of CIENA shall not withdraw, amend, modify or qualify in a manner adverse to the Company the CIENA Board Recommendation (or announce publicly its intention to do so) except that, prior to receipt of the CIENA Requisite Vote, the Board of Directors of CIENA shall be permitted to withdraw, amend, modify or materially qualify in a manner adverse to the Company the CIENA Board Recommendation (or publicly announce its intention to do so) and fail to include the CIENA Fairness Opinion following three Business Days’ prior notice to the Company but only if (i) CIENA has complied in all material respects with this Agreement, and (ii) after receiving advice of its outside legal counsel, the Board of Directors of CIENA determines in good faith that it is required to withdraw, amend or modify the CIENA Board Recommendation in order to satisfy its fiduciary duty to the stockholders of CIENA under applicable law.

SECTION 5.7. Filings; Other Actions; Notification.

(a) CIENA shall (with the cooperation of the Company) prepare and file with the SEC the S-4 Registration Statement as promptly as practicable. CIENA and the Company each 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/Proxy Statement to the respective stockholders of each of Company and CIENA.

(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. CIENA will advise the Company promptly in respect of any understandings or arguments which it proposes to make or has made with applicable federal, state or foreign governmental bodies having jurisdiction over or rights of review with respect to antitrust law, in connection with the Merger, and CIENA and the Company shall use their reasonable best efforts to seek to resolve any objections to the Merger as may be asserted by a Governmental Entity under applicable laws. Notwithstanding, the foregoing, nothing herein shall require CIENA, in connection with the receipt of any regulatory approval, to agree to sell or divest any material assets or business or agree to restrict in any material way any business conducted by or proposed to be conducted by CIENA or to litigate or formally contest any proceeding relating to any regulatory approval process in connection with the Merger.

(c) The Company and CIENA each shall keep the other apprised of the status of matters relating to completion of the transactions contemplated hereby.

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(d) 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/Proxy Statement, 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.

SECTION 5.8. NASDAQ Listing.

As soon as practicable after the date hereof and in any event prior to the Effective Time, CIENA shall file a Notification of Additional Shares with NASDAQ regarding the shares of CIENA Common Stock to be issued in connection with the Merger, reserved for issuance under the Company Stock Plans and upon exercise of Assumed Options, the CIENA Replacement Options, the ESPP, the Overseas Options, the Notes and Company Warrants.

SECTION 5.9. Company Stock Options; Company Warrants; Company Notes.

(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 Stock Plans in effect on the date hereof (each, a “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 Exchange Ratio. The exercise price of each Company Stock Option shall also be adjusted by dividing and rounding up to the nearest whole cent (i) the exercise price for each share otherwise purchasable pursuant to each Company Option by (ii) the 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, except for the acceleration of options described on **Schedule 5.9**.

(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. 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 such Assumed Options and that such Assumed Options shall continue in effect on the same terms and conditions as the Company Stock Options and the applicable Stock Plan (subject to the adjustment set forth in this **Section 5.9**).

(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 (decreased to the nearest whole share) calculated by multiplying (i) the number of shares of Company Common Stock subject to such Company Warrant immediately prior to the Effective Time by (ii) the Exchange Ratio, and exercisable 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 Exchange Ratio. At or prior to the Effective Time, the Company shall make all arrangements necessary to be made prior to the Effective Time with respect to the Company Warrants to permit the assumption of the unexercised Company Warrants by CIENA pursuant to this **Section 5.9(e)**.

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(f) Concurrent with the Effective Time, CIENA shall execute and deliver to the Trustee under the Notes one or more supplemental indentures as may be required under the Indenture under which the Notes are issued in order, among other things, to provide for the assumption of the Notes by CIENA and the convertibility of the Notes into CIENA Common Stock, in accordance with the terms thereof.

(g) In the event that the Closing Date occurs on or prior to May 20, 2002, then in respect of any options which the Company was committed to issue to certain employees under the terms of its Offer to Exchange dated October 19, 2001 (the "Offer to Exchange"), CIENA will issue to the relevant employees who are continuously employed by the Company and CIENA through the relevant grant date CIENA options (the "CIENA Replacement Options") in accordance with the terms and conditions of the Offer to Exchange in replacement for options to purchase shares of Company Common Stock that were tendered by employees who accepted the Offer to Exchange. The number of shares of CIENA Common Stock subject to each CIENA Replacement Option shall equal (rounded down to the nearest whole share) the product of (i) the number of shares of Company Common Stock subject to the cancelled option to which the CIENA Replacement Option relates and (ii) the Exchange Ratio, subject to adjustment for any split, recapitalization, or similar event. The exercise price of each CIENA Replacement Option shall be the fair market value of the CIENA Common Stock on the date of grant of the CIENA Replacement Option.

(h) Each outstanding purchase right under the ESPP (each, an "Assumed Purchase Right") shall be assumed by CIENA. Each Assumed Purchase Right shall continue to have, and be subject to, the terms and conditions set forth in the ESPP and the documents governing the Assumed Purchase Rights, except that the number of shares of CIENA Common Stock issuable upon exercise thereof shall equal the number of shares of Company Common Stock otherwise issuable upon exercise thereof multiplied by the Exchange Ratio and the purchase price of such shares of CIENA Common Stock on the Purchase Date (as defined in the ESPP) shall be the lower of (i) the quotient determined by dividing 85% of the fair market value per share of the Company Common Stock on the Offering Date (as defined in the ESPP) for such Purchase Period (as defined in the ESPP) by the Exchange Ratio and (ii) 85% of the fair marked value per share of CIENA Common Stock on the applicable Purchase Date (with the number of shares rounded down to the nearest whole share and the purchase price rounded up to the nearest whole cent).

(i) As soon as practicable after the execution of this Agreement, the Company and CIENA shall confer and work together in good faith to agree upon mutually acceptable employee benefit and compensation arrangements.

(j) To the extent that officers, directors and 10% stockholders of the Company who are currently required to report their beneficial ownership of equity securities of the Company pursuant to Section 16 of the Exchange Act will be required in the judgment of CIENA's Board of Directors to report their beneficial ownership of equity securities of CIENA following the Effective Date under Section 16 of the Exchange Act, the Board of Directors of CIENA will adopt resolutions prior to the consummation of the Merger providing that the receipt of CIENA equity securities from CIENA as a consequence of the Merger and the related transactions contemplated hereby are intended to be exempt from liability pursuant to Section 16(b) of the Exchange Act and that the approval is intended to grant the exemption from Section 16(b) provided by Rule 16b-3(d) under the Exchange Act.

(k) If the Closing Date occurs prior to May 20, 2002, on the date on which CIENA grants the CIENA Replacement Options, CIENA shall issue options to purchase CIENA Common Stock to each individual listed on **Schedule 5.9(k)** (the "Overseas Options") and subject to the terms and conditions described on **Schedule 5.9(k)**, provided that such individual has been continuously employed by the Company through the Closing Date.

SECTION 5.10. Notification of Certain Matters.

The Company shall give prompt notice to CIENA, and CIENA shall give prompt notice to the Company, of the 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; or (iii) any failure of the Company or CIENA, 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 5.10** shall not limit or otherwise affect the remedies available to the party receiving such notice.

SECTION 5.11. Reorganization.

Each of CIENA and the Company adopts this Agreement as a tax-free plan of reorganization and each 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 5.12. Indemnification.

From and after the Effective Time for a period of six years, CIENA shall fulfill 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 provision of the Company Certificate or its bylaws as each is in effect on the date hereof. For a period of six years after the Effective Time, CIENA will cause the Surviving Company to use commercially reasonable efforts to maintain in effect, if available, directors' and officers' liability insurance covering those persons who are currently covered by the Company's directors' and officers' liability insurance policy on terms comparable to those applicable to the current directors and officers of the Company, provided that CIENA shall not be required to pay an annual premium therefor in excess of 200% of the last annual premium paid for the Company's directors' and officers' liability insurance prior to the date of this Agreement but shall, in such event, maintain such coverage as can be purchased for such amount.

SECTION 5.13. 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) **Stockholder Approvals.** The Merger shall have been duly approved by holders of Shares constituting the Company Requisite Vote and by holders of CIENA Common Stock constituting the CIENA Requisite Vote.

(b) **Regulatory Consents.** The waiting period applicable to the consummation of the Merger under the Hart-Scott-Rodino Act and Applicable Foreign Competition Laws, where a filing and waiting period are required prior to consummation of the Merger, shall have expired or been terminated. Other than the filing provided for in **Section 1.1(b)**, all other notices, reports and other filings required to be made prior to the Effective Time by the Company or CIENA or any of their respective Subsidiaries with, and all consents, registrations, approvals, permits and authorizations required to be obtained prior to the Effective Time by the Company or CIENA or any of their respective Subsidiaries from, any governmental entity (collectively, "Governmental Consents"), in connection with the execution and delivery of this Agreement, and the consummation of the Merger and the other transactions contemplated by this Agreement shall have been made or obtained, except where the failure to make any such filings or obtain any such Governmental Consents would not have a material adverse effect on CIENA, the Company and their respective Subsidiaries in all jurisdictions requiring such filings or Governmental Consents in the event such filings are not made or such Consents are not obtained.

(c) **Litigation.** No court or governmental entity of competent jurisdiction shall have enacted, issued, promulgated, enforced or entered any law, statute, ordinance, rule, regulation, judgment, decree, injunction or other order (whether temporary, preliminary or permanent) that is in effect and restrains, enjoins or otherwise prohibits consummation of the Merger (collectively, an "Order") and no governmental entity shall have instituted any proceeding which continues to be pending seeking any such Order.

(d) **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.

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.** 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. The Company's representations and warranties contained in **Section 2.3** of this Agreement shall be true and correct in all material respects 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 each of the Company's representations and warranties in each other Section of **Article II** of this Agreement shall be true and correct in all respects 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 where the failure of such representation and warranty to be true and correct in all respects would not have or would not be reasonably likely to result in a Company Material Adverse Effect, provided that any such representation and warranty which is itself qualified as to materiality shall not be deemed so qualified for purposes of this condition and any representation and warranty that addresses matters only as of a certain date shall be true and correct as of that certain 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.

(b) **No Company Material Adverse Effect.** There shall have occurred no effects, events, occurrences, developments or changes that have had or are reasonably likely to have a Company Material Adverse Effect.

(c) **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, which are required by their terms to be obtained for such contracts, leases or agreements to remain in effect following Closing, and which are set forth on **Schedule 6.2(c)**, except where the failure to receive such consents or waivers would not reasonably be likely, individually or in the aggregate, to have a Company Material Adverse 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 qualify as a reorganization under Section 368(a) of the Code. In rendering such opinion, Hogan & Hartson L.L.P. shall require delivery of and rely upon representation letters delivered by CIENA and the Company in customary form.

(e) **Affiliate Letters.** CIENA shall have received executed letters in the form attached hereto as Exhibit B from each director and executive officer of the Company (collectively, the "Affiliate Letters") and each such Affiliate Letter shall remain in effect as of the Closing Date.

(f) **Stockholder Agreements.** CIENA shall have received executed Stockholder Agreements in the form attached as Exhibit A from each stockholder or optionholder who is also an officer or director of the Company or affiliated with such Person and each such Stockholder Agreement shall remain in effect as of the Closing Date.

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 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. CIENA's representations and warranties contained in **Section 3.9** of this Agreement shall be true and correct in all material respects 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 each of the representations and warranties of CIENA contained in each other section of **Articles III and IV** of this Agreement shall be true and correct in all respects 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 where the failure of such representation and warranty to be true and correct in all respects would not have and would not be reasonably likely to result in a CIENA Material Adverse Effect, provided that any such representation and warranty which is itself qualified as to materiality shall not be deemed so qualified for purposes of this condition and any representation and warranty that addresses matters only as of a certain date shall be true and correct as of that certain 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.

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(b) **Tax Opinion.** The Company shall have received an opinion of Fenwick & West LLP, counsel to the Company, dated the Closing Date to the effect that the Merger will qualify as a reorganization under Section 368(a) of the Code. In rendering such opinion, Fenwick & West LLP, may require delivery of and rely upon representation letters delivered by CIENA and the Company in customary form.

(c) **No CIENA Material Adverse Effect.** There shall have occurred no effects, events, occurrences, developments or changes that have had or are reasonably likely to have a CIENA Material Adverse Effect.

ARTICLE VII TERMINATION

SECTION 7.1. 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 and CIENA referred to in **Section 6.1(a)**, by mutual written consent of the Company and CIENA by action of their respective Boards of Directors.

SECTION 7.2. 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 (a) the Merger shall not have been consummated by September 30, 2002, whether such date is before or after the date of approval by the stockholders of the Company or CIENA (the "Termination Date"); (b) the approval of the Company's stockholders required by **Section 6.1(a)** shall not have been obtained at a meeting duly convened therefor or at any adjournment or postponement thereof; (c) the approval of CIENA's stockholders required by **Section 6.1(a)** shall not have been obtained at a meeting duly convened therefor or at any adjournment or postponement thereof; or (d) 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 (a), (b) or (c) 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.

SECTION 7.3. Termination by the Company.

This Agreement may be terminated and the Merger may be abandoned by action of the Board of Directors of the Company:

(a) at any time prior to the approval by Company stockholders referred to in **Section 6.1(a)**, if (i) the Company is not in material breach of any of the terms of this Agreement, (ii) 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, (iii) 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 financial terms or, if applicable, the strategic benefit and long-term value to stockholders of each of the revised Merger Consideration and the Superior Proposal, and (iv) the Company prior to such termination pays to CIENA in immediately available funds the fees and expenses required to be paid pursuant to **Section 7.5**. The Company agrees (A) that it will not enter into a binding agreement referred to in clause (ii) above until at least the sixth business day after it has provided the notice to CIENA required thereby and (B) 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;

(b) if CIENA or its Board of Directors shall have (i) withdrawn, modified or amended in any respect adverse to the Company its recommendation to stockholders in favor of the Merger or failed to reconfirm its recommendation of this Agreement or the Merger within five Business Days after a written request by the Company to do so ("Change in CIENA Board Recommendation"), (ii) failed as promptly as practicable after the Form S-4 is declared effective to mail the Prospectus/Proxy Statement to its stockholders, unless such failure was caused by the actions or inactions of the Company or its representatives, or failed to include in the Prospectus/Proxy Statement the CIENA Board Recommendation (iii) approved, publicly recommended or entered into an agreement with respect to, or consummated, or adopted a resolution to approve, publicly recommend, enter into an agreement with respect to, or consummate, any proposal for a merger or other business combination as a result of which CIENA would be acquired by any third party or any proposal or offer to acquire in any manner, directly or indirectly, 10% or more of the equity securities, voting securities or Assets of CIENA (except in connection with sales of products in the ordinary course of business) that is

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explicitly conditioned, directly or indirectly, upon either termination of this Agreement or failure to obtain the approval of the Merger by the stockholders of CIENA, or (iv) in response to the commencement of any tender offer or exchange offer for outstanding CIENA Common Stock by a person unaffiliated with the Company that is explicitly conditioned, directly or indirectly, upon either termination of this Agreement or failure to obtain the approval of the Merger by the CIENA stockholders, not publicly recommended rejection of such tender offer or exchange offer within ten Business Days after the commencement thereof (as such term is defined in Rule 14d-2 under the Exchange Act); or

(c) at any time prior to the Effective Time, if there is a material breach by CIENA of any representation, warranty, covenant or agreement made by it contained in this Agreement or if any representation or warranty made by CIENA shall have become materially untrue, in either case such that the conditions set forth in **Section 6.3(a)** would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become untrue, provided, that if such inaccuracy in CIENA's representations and warranties or breach by CIENA is curable by CIENA through the exercise of its commercially reasonable efforts, the Company may not terminate this Agreement under this **Section 7.3(c)** for 30 days after delivery of written notice from the Company to CIENA of such breach, provided that CIENA continues to exercise commercially reasonable efforts to cure such breach (it being understood that the Company may not terminate this Agreement pursuant to this paragraph (c) if such breach is cured during such 30-day period).

SECTION 7.4. 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 approval by stockholders of CIENA referred to in **Section 6.1(a)**, by action of the Board of Directors of CIENA:

(a) if the Company or its Board of Directors shall have (i) 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 five Business Days after a written request by CIENA to do so ("Change in Company Board Recommendation"), (ii) failed as promptly as practicable after the Form S-4 is declared effective to mail the Prospectus/ Proxy Statement to its stockholders, unless such failure was caused by the actions or inactions of CIENA or its representatives, or failed to include in such Prospectus/ Proxy Statement the Company Board Recommendation, (iii) approved, publicly recommended or entered into an agreement with respect to, or consummated, or adopted a resolution to approve, publicly recommend, enter into an agreement with respect to, or consummate, any Acquisition Proposal from a person other than CIENA or any of its affiliates, (iv) in response to the commencement of any tender offer or exchange offer for outstanding Company Common Stock by a person unaffiliated with CIENA, not publicly recommended rejection of such tender offer or exchange offer within ten Business Days after the commencement thereof (as such term is defined in Rule 14d-2 under the Exchange Act); or

(b) at any time prior to the Effective Time, if there is a material breach by the Company of any representation, warranty, covenant or agreement made by it contained in this Agreement or if any representation or warranty made by the Company shall have become materially untrue, in either case such that the conditions set forth in **Section 6.2(a)** would not be satisfied as of the time of such breach or as of the time such representation or warranty shall have become materially untrue, provided, that if such inaccuracy in the Company's representations and warranties or breach by the Company is curable by the Company through the exercise of its commercially reasonable efforts, CIENA may not terminate this Agreement under this **Section 7.4(b)** for 30 days after delivery of written notice from CIENA to the Company of such breach, provided that the Company continues to exercise commercially reasonable efforts to cure such breach (it being understood that CIENA may not terminate this Agreement pursuant to this paragraph (b) if such breach is cured during such 30-day period).

SECTION 7.5. Effect of Termination and Abandonment.

(a) In the event of termination of this Agreement and the abandonment of the Merger pursuant to this **Article VII**, this Agreement (other than as set forth in this **Section 7.5** and **Section 8.1**) 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.

(b) In the event that this Agreement is terminated (i) by the Company pursuant to **Section 7.3(a)** or (ii) by CIENA pursuant to **Section 7.4(a)**, then the Company shall (x) 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 \$36.7 million payable by wire transfer of same day funds and (y) in no event later than two Business Days after CIENA shall have requested payment of its expenses incurred in connection with the transactions contemplated hereby, pay to CIENA the amount of such expenses up to a maximum of \$2 million

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payable by wire transfer of same day funds. Notwithstanding the foregoing, except as provided in **Section 7.5(c)** below, the Company shall have no obligation to pay the amounts specified in this paragraph (b) if the Agreement is terminated by CIENA pursuant to **Section 7.4(a)(i)**, and the proximate reason for the Change in Company Board Recommendation is a development or combination of developments relating solely to CIENA that has resulted in or is reasonably likely to result in a CIENA Material Adverse Effect.

(c) In the event that this Agreement is terminated pursuant to clause (b) of **Section 7.2**, or pursuant to **Section 7.4(a)(i)** in a circumstance where no termination fee would otherwise be payable pursuant to the last sentence of **Section 7.5(b)**, and prior to, or at the time of, the Company Stockholders Meeting or Change in Company Board Recommendation referred to therein any Person (a “Potential Company Acquiror”) shall have made an Acquisition Proposal to the Company or any of its Subsidiaries or any of its stockholders that is then publicly known or shall have publicly announced an intention (whether or not conditional) to make an Acquisition Proposal with respect to the Company or any of its Subsidiaries and, if within 12 months of such termination, the Company enters into an agreement concerning a transaction that constitutes an Acquisition Proposal made by the Potential Company Acquiror, the Company shall (x) at the time of entering into such agreement, pay to CIENA a fee of \$36.7 million payable by wire transfer of same day funds and (y) in no event later than two business days after CIENA shall have requested payment of its expenses incurred in connection with the transactions contemplated hereby, pay to CIENA the amount of such expenses up to a maximum of \$2 million payable by wire transfer of same day funds.

(d) In the event this Agreement is terminated by the Company pursuant to **Section 7.3(b)**, then CIENA shall (x) promptly, but in no event later than the first Business Day following the date it receives notice of such termination, pay to Company a termination fee of \$36.7 million payable by wire transfer of same day funds and (y) in no event later than two Business Days after the Company shall have requested payment of its expenses incurred in connection with the transactions contemplated hereby, pay to the Company the amount of such expenses up to a maximum of \$2 million payable by wire transfer of same day funds. Notwithstanding the foregoing, CIENA shall have no obligation to pay the amounts specified in this paragraph (d) if the Agreement is terminated by the Company pursuant to **Section 7.3(b)(i)**, and the proximate reason for the Change in CIENA Board Recommendation is a development or combination of developments relating solely to the Company that has resulted in or is reasonably likely to result in a Company Material Adverse Effect.

(e) In the event that this Agreement is terminated pursuant to clause (c) of **Section 7.2**, or pursuant to **Section 7.3(b)**, and prior to, or at the time of, the CIENA Stockholders Meeting or Change in CIENA Board Recommendation referred to therein any Person (a “Potential CIENA Acquiror”) shall have made a CIENA Acquisition Proposal to CIENA or any of its Subsidiaries or any of its stockholders that is then publicly known or shall have publicly announced an intention to make a CIENA Acquisition Proposal with respect to CIENA or any of its Subsidiaries, (but, in the case of a termination if there has been no Change in CIENA Board Recommendation, only if such CIENA Acquisition Proposal is explicitly conditioned, directly or indirectly, upon either the termination of this Agreement or failure to obtain approval of the Merger by the stockholders of CIENA), and, if within 12 months of such termination, CIENA enters into an agreement concerning a transaction that constitutes a CIENA Acquisition Proposal with the Potential CIENA Acquiror, CIENA shall (x) at the time of entering into such agreement, pay to the Company a fee of \$87.2 million less, if applicable, the amount previously paid pursuant to **Section 7.5(d)**, payable by wire transfer of same day funds and (y) in no event later than two Business Days after the Company shall have requested payment of its expenses incurred in connection with the transactions contemplated hereby, pay to the Company the amount of such expenses up to a maximum of \$2 million payable by wire transfer of same day funds. For such purposes “CIENA Acquisition Proposal” means any proposal for a merger or other business combination as a result of which CIENA would be acquired by any third party or any proposal or offer to acquire in any manner, directly or indirectly 10% or more of the equity securities, voting securities or Assets of CIENA (except in connection with sales of products in the ordinary course of business).

(f) The Company and CIENA each acknowledge that the agreements contained in **Sections 7.5(b), (c) and (d)** are an integral part of the transactions contemplated by this Agreement, and that, without these agreements, the Company, and CIENA would not enter into this Agreement; accordingly, if any party fails to promptly pay the amounts due pursuant to **Section 7.5(b), Section 7.5(c) or Section 7.5(d)**, and, in order to obtain such payment, the other party commences a suit which results in a judgment against the defaulting party for the fees set forth in this **Section 7.5**, the defaulting party shall pay to the other party 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.

**ARTICLE VIII
MISCELLANEOUS AND GENERAL**

SECTION 8.1. Survival.

This **Article VIII** and the agreements of the Company and CIENA contained in **Section 5.9** (Company Stock Options; Company Warrants; Company Notes), **Section 5.11** (Reorganization) and **Section 5.12** (Indemnification) shall survive the consummation of the Merger. This **Article VIII** and the agreements of the Company and CIENA contained in the provisions of **Section 5.3**(Access; Documents; Supplemental Information) regarding the Confidentiality Agreement, **Section 8.2** (Expenses), and **Section 7.5** (Effect of Termination and Abandonment) shall survive the termination of this Agreement. All other representations, warranties, covenants and agreements in this Agreement shall not survive the consummation of the Merger or the termination of this Agreement.

SECTION 8.2. 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, subject to the provisions of **Section 7.5**.

SECTION 8.3. Press Releases.

The parties shall issue a joint initial press release announcing the execution of this Agreement as may be mutually agreed. Thereafter, the parties will cooperate with one another in public communications made in connection with the Merger. Unless required by applicable law neither party shall issue any press release or otherwise make public any information with respect to this Agreement or the transactions contemplated hereby, prior to the Closing, without the prior consent of the other, and in any event no such public disclosure shall be made without first delivering a copy thereof to the other party prior to release.

SECTION 8.4. Contents of Agreement; Parties in Interest; Etc.

This Agreement, the Schedules and Exhibits hereto and the agreements referred to or contemplated herein and 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, as modified, as appropriate by this 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 8.5. 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, and as provided in **Section 1.1(d)**. 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 8.6 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) “*Applicable Foreign Competition Laws*” shall mean Laws of any foreign governmental body that are designed or intended to prohibit, restrict or regulate actions having the purpose or effect of monopolization, lessening of competition or restraint of trade and are applicable to the Merger.

(c) “*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.

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(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 taken into account when determining whether there has been, or will be, a CIENA Material Adverse Effect: (a) any failure by CIENA to meet analysts’ 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 resulting from the announcement or pendency of the Merger, including a decline in the trading price of CIENA’s Common Stock; (c) any adverse change, effect, event, occurrence, state of facts or development attributable to conditions affecting generally the industry 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 customers, provided that this exception is not applicable to any such adverse change, effect, event, occurrence, state of facts or development that has a materially disproportionate impact on CIENA or (d) any matter referred to on **Schedule 8.6**.

(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, Assets, liabilities or results of operations of the Company and its Subsidiaries, taken as a whole; provided, however, that none of the following shall be taken into account when determining whether there has been, or will be, a Company Material Adverse Effect: (a) any failure by Company to meet analysts’ 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 attributable to conditions affecting generally the industry in which the Company participates, the U.S. economy as a whole or foreign economies in any locations where the Company has material operations or sales or customers, provided that this exception is not applicable to any such adverse change, effect, event, occurrence, state of facts or development that has a materially disproportionate impact on the Company; (c) any adverse change resulting from the announcement or pendency of the Merger, including a decline in the trading price of the Company Common Stock or (d) any matter referred to on **Schedule 8.6**.

(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 Materials 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.

(l) “*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.

(m) “*Hazardous Materials*” 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.

(n) “*Knowledge of the Company*,” “*Knowledge of CIENA*,” “*CIENA’s Knowledge*” or “*Company’s Knowledge*” shall mean the actual knowledge of any of the directors and executive officers of the Company or CIENA, as the case may be, as those terms are defined in Section 3(a)(7) of, and Rule 3b-7 under, the Exchange Act, respectively.

(o) “*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.

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(p) “*Liability*” shall mean any liability or obligation of whatever kind or nature (whether known or unknown, whether asserted or unasserted, whether absolute or contingent, whether accrued or unaccrued, whether liquidated or unliquidated and whether due or about to become due), including any liability for Taxes.

(q) “*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.

(r) “*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 accrued on the relevant Financial Statements.

(s) “*Person*” shall mean any individual, corporation, partnership, limited partnership, limited liability company, trust, association or entity or government agency or authority.

(t) “*Subsidiary*” means any corporation, partnership, joint venture or other entity in which the Company or CIENA, as the context requires, (a) owns, directly or indirectly, 50% or more of the outstanding voting securities or equity interests or (b) is a general partner.

(u) “*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.

(v) “*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 8.7. 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 (receipt confirmed, promptly followed by a hard-copy delivered in accordance with this **Section 8.7**) or by registered or certified mail (return receipt requested), or by overnight courier or delivery service, 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
Fax: 410.981.7414

with a copy to:

Hogan & Hartson L.L.P.
111 South Calvert Street, 16th Floor
Baltimore, Maryland 21202
Attention: Michael J. Silver
Fax: 410.539.6981

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If to the Company:

ONI Systems Corp.
5965 Silver Creek Valley Road
San Jose, California 95138
Attention: General Counsel
Fax: 408.965.2660

with a copy to:

Fenwick & West LLP
Two Palo Alto Square
Palo Alto, California 94306
Attention: Richard L. Dickson
Fax: 650.494.1417

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 delivered (in the case of delivery by facsimile transmission, as of the time of an electronic confirmation of receipt).

SECTION 8.8. 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 8.9. 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, but without regard to the conflict of laws principles thereof.

SECTION 8.10. 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 for the rights provided for in **Article I** and **Sections 5.9 and 5.12**.

SECTION 8.11. 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 8.12. 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 8.13. 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 8.14. 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 8.8** regarding the manner of waiver.

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GLOSSARY OF DEFINED TERMS

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Affiliate Letters	Section 6.2
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Applicable Foreign Competition Laws	Section 8.6
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FORM OF STOCKHOLDER AGREEMENT

STOCKHOLDER AGREEMENT

STOCKHOLDER AGREEMENT, dated as of February , 2002 (this "Agreement"), by the undersigned stockholder (the "Stockholder") of ONI Systems Corp., a Delaware corporation (the "Company"), for the benefit of CIENA Corporation, a Delaware corporation ("CIENA").

RECITALS

WHEREAS, CIENA and the Company are entering into an Agreement and Plan of Merger, dated as of February 17, 2002 (as the same may be amended from time to time, the "Merger Agreement"), whereby, upon the terms and subject to the conditions set forth in the Merger Agreement, each issued and outstanding share of common 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, or has or shares the power to vote or dispose of, 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 (all outstanding shares of Company Capital Stock so owned of record or beneficially, 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"); and

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. Covenants of Stockholder. Until the termination of this Agreement in accordance with Section 4, Stockholder agrees as follows:

(a) At the Company Stockholders 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;

(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 any proposal or any amendment of the Company's Certificate of Incorporation or By-Laws, which proposal or 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, and the Stockholder further agrees not to vote (or cause to be voted) the Subject Shares in favor of any proposal to approve any transaction that arises from any Acquisition Proposal. The Stockholder further agrees not to commit or agree to take any action inconsistent with the foregoing;

(c) 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; provided, however, that the Stockholder may transfer up to 100,000 shares of Company Common Stock in the aggregate (i) without consideration, by way of gift to members of the Stockholder's immediate family (or a trust for the direct or indirect benefit of the Stockholder or the Stockholders' immediate family) and to organizations qualified under Section 501(c)(3) of the Internal Revenue

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Code of 1986, or (ii) through a *bona fide* pledge of the Subject Shares by the Stockholder to a third party as collateral for a loan, so long as the transferee or pledgee of the Subject Shares agrees in writing to be bound by the terms of this Agreement. The foregoing number of shares shall be appropriately adjusted if, between the date of this Agreement and the Effective Time, the outstanding shares of Company Common Stock are changed into a different number or class of shares by reason of any stock split, stock dividend, reverse stock split, reclassification, recapitalization or other similar transaction.

(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; provided, however, that if the Stockholder is an executive officer of the Company, nothing in this Section 1(d) shall be interpreted to prohibit the Stockholder from acting in accordance with instructions given by the Board of Directors of the Company so long as such actions comply with the provisions of Section 5.4 of the Merger Agreement.

(e) At any time requested by CIENA, the Stockholder shall grant to CIENA or its designees a written proxy or proxies to vote all of the Subject Shares in favor of the Merger and against any Acquisition Proposal or any stockholder proposal intended to promote an Acquisition Proposal; and

(f) The Stockholder shall use the Stockholder's reasonable 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.

2. Representations and Warranties. The Stockholder represents and warrants to CIENA as follows:

(a) The Stockholder is the beneficial owner of, and has good and marketable title to, the Subject Shares. The Stockholder does not own, of record or beneficially, any shares of capital stock of the Company other than the Subject Shares. The Stockholder has the sole right to vote, and the sole power of disposition with respect to, the Subject Shares, and none of the Subject Shares is subject to any voting trust, proxy or other agreement, arrangement or restriction with respect to the voting or disposition of such Subject Shares, except as contemplated by this Agreement;

(b) This Agreement has been duly executed and delivered by the Stockholder. Assuming the due authorization, execution and delivery of this Agreement by CIENA, this Agreement constitutes the valid and binding agreement of the Stockholder enforceable against the Stockholder in accordance with its terms, except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium and other similar laws of general application which may affect the enforcement of creditors' rights generally and by general equitable principles. The execution and delivery of this Agreement by the Stockholder does not and will not conflict with any agreement, order or other instrument binding upon the Stockholder, nor require the Stockholder to make or obtain any regulatory filing or approval.

3. Affiliate Letter. The Stockholder is concurrently executing and delivering an Affiliate Letter in the form of **Exhibit B** to the Merger Agreement, if requested by CIENA.

4. Termination. The obligations of the Stockholder hereunder shall terminate upon the earlier of the termination of the Merger Agreement pursuant to **Article VII** thereof or the Effective Time.

5. 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.

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- 6. Successors, Assigns and Transferees Bound.** Any successor, assignee or transferee (including a successor, assignee or transferee as a result of the death of the Stockholder, such as an executor or heir) shall be bound by the terms hereof, and the Stockholder shall take any and all actions necessary to obtain the written confirmation from such successor, assignee or transferee that it is bound by the terms hereof.
- 7. 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.
- 8. 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.
- 9. Amendment.** This Agreement may be amended only by means of a written instrument executed and delivered by both the Stockholder and CIENA.
- 10. Governing Law.** This Agreement shall be governed by, and construed 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.
- 11. Capitalized Terms.** Capitalized terms used in this Agreement that are not defined herein shall have such meanings as set forth in the Merger Agreement.
- 12. 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.
- 13. 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.

By:

(print or type name)

Number and class of shares of Company Capital Stock owned
or subject to acquisition on the date hereof:
(including shares issuable under stock options, warrants and convertible securities)

Accepted and Agreed to as of the date set
forth above:

CIENA Corporation

By:

Name:

Title:

FORM OF AFFILIATE LETTER

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_____, 2002

CIENA Corporation
1201 Winterson Road
Linthicum, Maryland 21090

Ladies and Gentlemen:

I have been advised that as of the date of this letter I may be deemed to be an “affiliate” of ONI Systems Corp., a Delaware corporation (the “Company”), as the term “affiliate” is defined for purposes of paragraphs (c) and (d) of Rule 145 of the rules and regulations (the “Rules and Regulations”) of the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Act”). Pursuant to the terms of the Agreement and Plan of Merger dated as of February 17, 2002 (the “Merger Agreement”) among CIENA Corporation, a Delaware corporation (“CIENA”) and the Company, the Company will enter into a business combination with CIENA or one of its subsidiaries (the “Merger”). Capitalized terms used in this letter without definition shall have the meanings assigned to them in the Merger Agreement.

As a result of the Merger, I will receive shares of Common Stock, \$.01 par value, of CIENA (the “CIENA Shares”) in exchange for shares of capital stock of the Company (the “Company Shares”) owned by me or purchasable upon exercise of stock options, warrants or convertible securities.

1. I represent, warrant and covenant to CIENA that in the event I receive any CIENA Shares as a result of the Merger:

A. I shall not make any sale, transfer or other disposition of the CIENA Shares for a period of 180 days from the Effective Date of the Merger (the “Lock-Up Period”). Following the expiration of the Lock-Up Period, I shall not make any sale, transfer or other disposition of the CIENA Shares in violation of the Act or the Rules and Regulations.

The foregoing restriction is expressly agreed to preclude me from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned’s Shares even if such CIENA Shares would be disposed of by someone other than me. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned’s Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such CIENA Shares.

Notwithstanding the foregoing, I may transfer the Undersigned’s Shares during the Lock-Up Period (i) as a *bona fide* gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein, (ii) to any trust for the director or indirect benefit of me or my immediate family, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, or (iii) with the prior written consent of CIENA. For purposes of this Letter, “immediate family” shall mean any relationship by blood, marriage or adoption, not more than first cousin. I also agree and consent to the entry of stop transfer instructions with CIENA’s transfer agent and registrar against the transfer of the Undersigned’s Shares except in compliance with the foregoing restrictions.

In addition, during and following the expiration of the Lock-Up Period, I shall not make any sale, transfer or other disposition of the CIENA Shares in violation of the Act or the Rules and Regulations.

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B. I have carefully read this letter and the Merger Agreement and discussed the requirements of such documents and other applicable limitations upon my ability to sell, transfer or otherwise dispose of the CIENA Shares, to the extent I felt necessary, with my counsel or counsel for the Company.

C. I have been advised that the issuance of the CIENA Shares to me pursuant to the Merger has been or will be registered with the Commission under the Act on a Registration Statement on Form S-4. However, I have also been advised that, because at the time the Merger is submitted for a vote of the stockholders of the Company, (a) I may be deemed to be an affiliate of the Company and (b) the sale, transfer or other disposition by me of the CIENA Shares will not have been registered under the Act, I may not sell, transfer or otherwise dispose of the CIENA Shares issued to me in the Merger following the expiration of the Lock-Up Period unless (i) such sale, transfer or other disposition is made in conformity with the volume and other limitations of Rule 145 promulgated by the Commission under the Act, (ii) such sale, transfer or other disposition has been registered under the Act or (iii) in the opinion of counsel reasonably acceptable to CIENA, such sale, transfer or other disposition is otherwise exempt from registration under the Act.

D. I understand that CIENA is under no obligation to register the sale, transfer or other disposition of the CIENA Shares by me or on my behalf under the Act or to take any other action necessary in order to make compliance with an exemption from such registration available.

E. I also understand that there will be placed on the certificates for the CIENA Shares issued to me, or any substitutions therefor, a legend stating in substance:

“THE SHARES REPRESENTED BY THIS CERTIFICATE WERE ISSUED IN A TRANSACTION TO WHICH RULE 145 PROMULGATED UNDER THE SECURITIES ACT OF 1933 APPLIES. THE SHARES REPRESENTED BY THIS CERTIFICATE MAY ONLY BE TRANSFERRED IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE REGISTERED HOLDER HEREOF AND CIENA, A COPY OF WHICH AGREEMENT IS ON FILE AT THE PRINCIPAL OFFICES OF CIENA.”

F. I also understand that unless a sale or transfer is made in conformity with the provisions of Rule 145, or pursuant to a registration statement, CIENA reserves the right to put the following legend on the certificates issued to my transferee:

“THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND WERE ACQUIRED FROM A PERSON WHO RECEIVED SUCH SHARES IN A TRANSACTION TO WHICH RULE 145 PROMULGATED UNDER THE SECURITIES ACT OF 1933 APPLIES. THE SHARES HAVE BEEN ACQUIRED BY THE HOLDER NOT WITH A VIEW TO, OR FOR RESALE IN CONNECTION WITH, ANY DISTRIBUTION THEREOF WITHIN THE MEANING OF THE SECURITIES ACT OF 1933 AND MAY NOT BE SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN ACCORDANCE WITH AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT OF 1933.”

G. Execution of this letter should not be considered an admission on my part that I am an “affiliate” of the Company as described in the first paragraph of this letter, nor as a waiver of any rights I may have to object to any claim that I am such an affiliate on or after the date of this letter.

2. By CIENA's acceptance of this letter, CIENA hereby agrees with me that certificates with the legends set forth in paragraphs 1(E) and (F) above will be substituted by delivery of certificates without such legend if (i) one year shall have elapsed from the date the undersigned acquired the CIENA Shares received in the Merger and the provisions of Rule 145(d)(2) are then available to the undersigned, (ii) two years shall have elapsed from the date the undersigned acquired the CIENA Shares received in the Merger and the provisions of Rule 145(d)(3) are then

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applicable to the undersigned, or (iii) CIENA has received an opinion of counsel, which opinion and counsel shall be reasonably satisfactory to CIENA to the effect that the restrictions imposed by Rule 145 under the Act no longer apply to the undersigned.

Very truly yours,

Name:

Agreed and accepted this _____
day of _____, 2002 by

CIENA Corporation

By:

Name:
Title:

OPINION OF CIENA'S FINANCIAL ADVISOR

The Board of Directors
CIENA Corporation
1201 Winterson Road
Linthicum, MD 21090

Members of the Board:

We understand that ONI Systems Corp. (the "Company") and CIENA Corporation (the "Buyer") propose to enter into an Agreement and Plan of Merger, substantially in the form of the draft dated February 15, 2002 (the "Merger Agreement"), which provides, among other things, for the merger (the "Merger") of the Company with and into the Buyer. Pursuant to the Merger, the Company will become a wholly owned subsidiary of the Buyer and each outstanding share of common stock, par value \$0.0001 per share, of the Company (the "Company Common Stock"), other than shares held in the treasury of the Company or held by Buyer or any affiliate of Buyer, will be converted into the right to receive 0.7104 shares (the "Exchange Ratio") of common stock, par value \$0.01 per share, of the Buyer (the "Buyer Common Stock"). The terms and conditions of the Merger are more fully set forth in the Merger Agreement.

You have asked for our opinion as to whether the Exchange Ratio pursuant to the Merger Agreement is fair from a financial point of view to the Buyer.

For purposes of the opinion set forth herein, we have:

- (i) reviewed certain publicly available financial statements and other business and financial information of the Company and the Buyer;
 - (ii) discussed certain internal financial statements and other financial and operating data concerning the Company prepared by the management of the Company and the Buyer, respectively;
 - (iii) discussed certain financial forecasts, prepared by the managements of the Company and the Buyer, respectively;
 - (iv) reviewed information relating to certain strategic, financial and operational benefits anticipated from the Merger, prepared by the managements of the Company and the Buyer, respectively;
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- (v) discussed the past and current operations and financial condition and the prospects of the Company, including information relating to certain strategic, financial, and operational benefits anticipated from the Merger, with senior executives of the Company and the Buyer, respectively;
- (vi) reviewed the pro forma impact of the Merger on the Buyer's earnings per share, consolidated capitalization and financial ratios;
- (vii) reviewed the reported prices and trading activity for the Company Common Stock and the Buyer Common Stock;
- (viii) compared the financial performance of the Company and the prices and trading activity of the Company Common Stock and the Buyer Common Stock with that of certain other comparable publicly-traded companies comparable with the Company and the Buyer, respectively, and their securities;
- (ix) reviewed the financial terms, to the extent publicly available, of certain comparable acquisition transactions;
- (x) participated in discussions and negotiations among representatives of the Company and the Buyer and their financial and legal advisors;
- (xi) reviewed the Merger Agreement and certain related documents; and
- (xii) considered such other factors and performed such other analyses as we have deemed appropriate.

We have assumed and relied upon without independent verification the accuracy and completeness of the information reviewed by us for the purposes of this opinion. With respect to the financial forecasts, including information relating to certain strategic, financial and operational benefits anticipated from the Merger, we have assumed that they have been reasonably prepared on bases reflecting the best currently available estimates and judgments of the future financial performance and prospects of the Company. We have relied upon the assessment by the managements of the Company and the Buyer of their ability to retain key employees. We have also relied upon, without independent verification, the assessment by the managements of the Company and the Buyer as to their respective technologies and products, the timing and risks associated with the integration of the Company and the Buyer, and the validity of, and risks associated with, the Company's and the Buyer's existing and future products and technologies. In addition, we have assumed that the Merger will be consummated in accordance with the terms set forth in the Merger Agreement. We have not made any independent valuation or appraisal of the assets or liabilities of the Company, nor have we been furnished with any such appraisals. Our opinion is necessarily based on financial, economic, market and other conditions as in effect on, and the information made available to us as of, the date hereof.

We have acted as financial advisor to the Board of Directors of the Buyer in connection with this transaction and will receive a fee for our services, including a transaction fee, which is contingent upon the consummation of the Merger. In the past, Morgan Stanley & Co.

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Incorporated and its affiliates have provided financial advisory and financing services for the Buyer and have received fees for the rendering of these services.

It is understood that this letter is for the information of the Board of Directors of the Buyer and may not be used for any other purpose without our prior written consent, except that this opinion may be included in its entirety in any filing made by the Buyer in respect of the transaction with the Securities and Exchange Commission. In addition, this opinion does not in any manner address the prices at which the Buyer Common Stock or the Company Common Stock will trade following the consummation of the Merger, and Morgan Stanley express no opinion or recommendation as to how the stockholders of the Company and the Buyer should vote at the stockholders' meetings held in connection with the Merger.

Based upon and subject to the foregoing, we are of the opinion on the date hereof that the Exchange Ratio pursuant to the Merger Agreement is fair from a financial point of view to the Buyer.

Very truly yours,

MORGAN STANLEY & CO. INCORPORATED

By: /s/ Cordell Spencer
Cordell Spencer
Managing Director

OPINION OF ONI SYSTEM'S FINANCIAL ADVISER

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PERSONAL AND CONFIDENTIAL

March 18, 2002

Board of Directors
ONI Systems Corp.
5965 Silver Creek Valley Road
San Jose, CA 95138

Gentlemen:

You have requested our opinion as to the fairness from a financial point of view to the holders of the outstanding shares of Common Stock, par value \$0.0001 per share (“Company Common Stock”), of ONI Systems Corp. (the “Company”) of the exchange ratio of 0.7104 shares of Common Stock, par value \$0.01 per share (“Ciena Common Stock”), of CIENA Corporation (“Ciena”) to be received for each share of Company Common Stock (the “Exchange Ratio”) pursuant to the Agreement and Plan of Merger, dated as of February 17, 2002 (the “Agreement”), between Ciena and the Company. The Agreement provides for the merger of the Company with and into Ciena or, alternatively, with and into a wholly owned subsidiary of Ciena.

Goldman, Sachs & Co., as part of its investment banking business, is continually engaged in performing financial analyses with respect to businesses and their securities in connection with mergers and acquisitions, negotiated underwritings, competitive biddings, secondary distributions of listed and unlisted securities and private placements and for estate, corporate and other purposes. We are familiar with the Company having provided certain investment banking services to the Company from time to time, including having acted as the lead manager of (i) the initial public offering of 8,000,000 shares of Company Common Stock in May 2000; (ii) the follow-on offering of 8,000,000 shares of Company Common Stock in October 2000; and (iii) the public offering of the Company’s 5% Convertible Subordinated Notes due in October 2005, in October 2000; and having acted as its financial advisor in connection with, and having participated in certain of the negotiations leading to, the Agreement. We also have provided certain investment banking services to Ciena from time to time, including having acted as the lead manager of (i) the initial public offering of 5,000,000 shares of Ciena Common Stock in February 1997; (ii) the follow-on offering of 9,110,622 shares of Ciena Common Stock in July 1997; (iii) the public offering of 11,000,000 shares of Ciena Common Stock in February 2001; and (iv) the public offering of Ciena’s

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Board of Directors
ONI Systems Corp.
March 18, 2002
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3.75% Convertible Notes due in February 2008, in February 2001. Lawton Fitt, a Managing Director of Goldman Sachs International, an affiliate of Goldman, Sachs & Co., is a director of Ciena. We have been informed that Ms. Fitt has recused herself from deliberating and voting on any proposals presented to Ciena's board of directors in respect of the Agreement and the merger contemplated therein. Goldman, Sachs & Co. provides a full range of financial advisory and securities services and, in the course of its normal trading activities, may from time to time effect transactions and hold positions in securities, including derivative securities, of the Company or Ciena for its own account and for the accounts of customers. Goldman, Sachs & Co. may provide investment banking services to the Company, Ciena and their respective subsidiaries in the future.

In connection with this opinion, we have reviewed, among other things, the Agreement; Annual Reports to Stockholders and Annual Reports on Form 10-K of the Company for the year ended December 31, 2000 and of Ciena for the five fiscal years ended October 31, 2001; the Registration Statement on Form S-1 of the Company, including the Prospectus dated May 31, 2000 included therein relating to the initial public offering of Company Common Stock; certain interim reports to stockholders and Quarterly Reports on Form 10-Q of the Company and Ciena; certain other communications from the Company and Ciena to their respective stockholders; certain internal financial analyses and forecasts for Ciena prepared by the management of Ciena; certain internal financial analyses and forecasts for the Company prepared by the management of the Company (the "Company Forecasts"); the financial analyses and forecasts for Ciena prepared by the management of the Company (the "Adjusted Ciena Forecasts"); and certain cost savings and operating synergies projected by the management of the Company to result from the transaction contemplated by the Agreement (the "Synergies"). We also have held discussions with members of the senior management of the Company and Ciena regarding their assessment of the strategic rationale for, and the potential benefits of, the transaction contemplated by the Agreement and the past and current business operations, financial condition and future prospects of their respective companies. In addition, we have reviewed the reported price and trading activity for the shares of Company Common Stock and Ciena Common Stock, compared certain financial and stock market information for the Company and Ciena with similar information for certain other companies the securities of which are publicly traded, reviewed the financial terms of certain recent business combinations in the communications technology industry specifically and in other industries generally and performed such other studies and analyses as we considered appropriate.

We have relied upon the accuracy and completeness of all of the financial, accounting and other information discussed with or reviewed by us and have assumed such accuracy and completeness for purposes of rendering this opinion. In that regard, we have assumed with your consent that the Company Forecasts, the Adjusted Ciena Forecasts and the Synergies have been reasonably prepared on a basis reflecting the best currently available estimates

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Board of Directors
ONI Systems Corp.
March 18, 2002
Page Three

and judgments of the Company. In addition, we have not made an independent evaluation or appraisal of the assets and liabilities of the Company or Ciena or any of their subsidiaries and we have not been furnished with any such evaluation or appraisal. Our advisory services and the opinion expressed herein are provided for the information and assistance of the Board of Directors of the Company in connection with its consideration of the transaction contemplated by the Agreement and such opinion does not constitute a recommendation as to how any holder of shares of Company Common Stock should vote with respect to such transaction.

Based upon and subject to the foregoing and based upon such other matters as we consider relevant, it is our opinion that as of the date hereof the Exchange Ratio pursuant to the Agreement is fair from a financial point of view to the holders of Company Common Stock.

Very truly yours,

/s/ Goldman, Sachs & Co.

(GOLDMAN, SACHS & CO.)

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

INDEX TO EXHIBITS

2.1	Merger Agreement (filed as Annex A)
5.1	Hogan & Hartson L.L.P. Opinion*
8.1	Hogan & Hartson L.L.P. Tax Opinion*
8.2	Fenwick & West LLP Tax Opinion*
23.1	Consent of PricewaterhouseCoopers LLP (filed herewith)
23.2	Consent of KPMG LLP (filed herewith)
23.3	Consent of Deloitte & Touche LLP (filed herewith)
23.4	Consent of Hogan & Hartson L.L.P.*
23.5	Consent of Fenwick & West LLP*
99.1	Form of Proxy Card for CIENA Stockholders (previously filed)
99.2	Form of Proxy Card for ONI Systems Stockholders (previously filed)
99.3	Consent of Morgan Stanley (previously filed)
99.4	Consent of Goldman, Sachs & Co. (filed herewith)

* To be filed by amendment

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 (1)(i) and (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.

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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 immediately preceding paragraph, 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 13th day of May, 2002.

CIENA CORPORATION

By: /s/ GARY B. SMITH

Gary B. Smith
President, Chief Executive Officer
and Director

Pursuant to the requirements of Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

May 13, 2002	/s/ PATRICK H. NETTLES, PH.D.*
	_____ Patrick H. Nettles, Ph.D. Executive Chairman of the Board of Directors
May 13, 2002	/s/ GARY B. SMITH
	_____ Gary B. Smith President, Chief Executive Officer and Director (Principal Executive Officer)
May 13, 2002	/s/ JOSEPH R. CHINNICI*
	_____ Joseph R. Chinnici Sr. Vice President, Finance and Chief Financial Officer (Principal Financial Officer)
May 13, 2002	/s/ ANDREW C. PETRIK*
	_____ Andrew C. Petrik Vice President, Controller and Treasurer (Principal Accounting Officer)
May 13, 2002	/s/ STEPHEN P. BRADLEY*
	_____ Stephen P. Bradley Director
May 13, 2002	/s/ HARVEY B. CASH*
	_____ Harvey B. Cash Director
May 13, 2002	/s/ DON H. DAVIS, JR.*
	_____ Don H. Davis, Jr. Director

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May 13, 2002

/s/ JOHN R. DILLON*

John R. Dillon
Director

Lawton W. Fitt
Director

May 13, 2002

/s/ JUDITH M. O'BRIEN*

Judith M. O'Brien
Director

Gerald H. Taylor
Director

* pursuant to power of attorney

By: /s/ RUSSELL B. STEVENSON, JR.

Russell B. Stevenson, Jr.
Attorney-in-fact

INDEX TO EXHIBITS

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99.2	Form of Proxy Card for ONI Systems Stockholders (previously filed)
99.3	Consent of Morgan Stanley (previously filed)
99.4	Consent of Goldman, Sachs & Co. (filed herewith)

* To be filed by amendment

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-4 of CIENA Corporation of our reports dated December 11, 2001 relating to the consolidated financial statements and financial statement schedule, which appear in CIENA Corporation's Annual Report on Form 10-K for the year ended October 31, 2001. We also consent to the reference to us under the headings "Summary Selected Consolidated Historical Financial Data" and "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
McLean, VA
May 13, 2002

Consent of KPMG LLP

The Board of Directors
ONI Systems Corp.:

We consent to the incorporation herein by reference of our report dated January 31, 2002, except Note 17, which is as of February 20, 2002, relating to the consolidated balance sheets of ONI Systems Corp. as of December 31, 2001 and 2000, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2001, which report appears in the December 31, 2001 annual report on Form 10-K of ONI Systems Corp. and to the reference to our firm under the heading "Experts" and "Summary Selected Consolidated Historical Financial Data of ONI Systems" in the prospectus.

/s/ KPMG LLP

Mountain View, California
May 13, 2002

CONSENT OF DELOITTE & TOUCHE LLP

We consent to the use in this Amendment No. 2 to Registration Statement No. 333-84614 on Form S-4 of CIENA Corporation of our report dated February 12, 2001 (March 29, 2001 as to the second paragraph of Note 1) relating to the financial statements of Cyras Systems, Inc. included in CIENA Corporation's Form 8-K filed on April 2, 2001, and to the reference to us under the heading "Experts" in the Prospectus.

/s/ Deloitte & Touche LLP

San Jose, California
May 13, 2002

PERSONAL AND CONFIDENTIAL

May 13, 2002

Board of Directors
ONI Systems Corp.
5965 Silver Creek Valley Road
San Jose, CA 95138

Re: Amendment No. 2 to Registration Statement (File No. 333-84614) of CIENA Corporation

Gentlemen:

Attached is our opinion letter, dated March 18, 2002, with respect to the fairness from a financial point of view to the holders of the outstanding shares of Common Stock, par value \$0.0001 per share ("Company Common Stock"), of ONI Systems Corp. (the "Company") of the exchange ratio of 0.7104 shares of Common Stock, par value \$0.01 per share, of CIENA Corporation ("Ciena") to be received for each share of Company Common Stock pursuant to the Agreement and Plan of Merger, dated as of February 17, 2002, between Ciena and the Company.

The foregoing opinion letter is provided for the information and assistance of the Board of Directors of the Company in connection with its consideration of the transaction contemplated therein and is not to be used, circulated, quoted or otherwise referred to for any other purpose, nor is it to be filed with, included in or referred to in whole or in part in any registration statement, proxy statement or any other document, except in accordance with our prior written consent. We understand that the Company has determined to include our opinion in the above-referenced Registration Statement.

In that regard, we hereby consent to the reference to the opinion of our Firm under the captions "Summary – Opinion of ONI Systems' Financial Advisor," "The Merger – Background of the Merger," "The Merger – Recommendation of the ONI Systems Board of Directors and Reasons for the Merger," and "The Merger – Opinion of ONI Systems' Financial Advisor" and to the inclusion of the foregoing opinion in the Joint Proxy Statement/Prospectus included in the above-mentioned Registration Statement, as amended. Notwithstanding the foregoing, it is understood that our consent is being delivered solely in connection with the filing of the above-mentioned version of the Registration Statement and that our opinion is not to be used, circulated, quoted or otherwise referred to for any other purpose, nor is it to be filed with, included in or referred to in whole or in part in any registration statement (including any subsequent amendments to the above-mentioned Registration Statement), proxy statement or any other document, except in accordance with our prior written consent. In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933 or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

/s/ Goldman, Sachs & Co.
GOLDMAN, SACHS & CO.