

CIENA CORP
Form S-4/A
May 09, 2003

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As filed with the Securities and Exchange Commission on May 9, 2003

Registration No. 333-104825

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

PRE-EFFECTIVE AMENDMENT NO. 1
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

Kathy A Fields
Howard J. Beber
Testa, Hurwitz & Thibault, LLP
125 High Street
Boston, MA 02110
(617) 248-7000

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 April 9, 2003, as such agreement

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may be amended, described in the enclosed Prospectus have been satisfied or waived.

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

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

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

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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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.

Dear WaveSmith Stockholder:

After careful consideration, the boards of directors of WaveSmith Networks, Inc. and CIENA Corporation have approved the merger of WaveSmith with CIENA. I am pleased to provide to you the enclosed proxy statement/prospectus relating to a special meeting of the stockholders of WaveSmith to be held on Wednesday, June 11, 2003, at 10:00 a.m. Eastern Time, at the offices of Testa, Hurwitz & Thibault, LLP at 125 High Street, Boston, Massachusetts.

At the special meeting, you will be asked to vote, in person or by proxy, on the proposed merger of WaveSmith with CIENA. The merger will be effected pursuant to the agreement and plan of merger, dated as of April 9, 2003, by and between CIENA and WaveSmith. Pursuant to the agreement and plan of merger, each outstanding share of capital stock of WaveSmith will be converted into the right to receive shares of CIENA common stock in the amounts set forth in the agreement and plan of merger. CIENA will issue approximately 33.6 million shares in the merger to WaveSmith's stockholders, including shares underlying WaveSmith stock options and warrants. CIENA common stock is traded on the Nasdaq National Market under the symbol CIEN. The closing price for CIENA common stock reported on the Nasdaq National Market on May 7, 2003, was \$5.52 per share. If the merger is approved and consummated, WaveSmith will cease to exist as a separate entity. Following the merger, based on 435,061,879 outstanding shares of CIENA common stock as of May 7, 2003, and assuming that all of the WaveSmith stock options or warrants have been exercised, WaveSmith stockholders would own approximately 7.7% of the combined company and CIENA stockholders would own approximately 92.3% of the combined company. The merger is described more fully in the proxy statement/prospectus. You will also be asked to vote, in person or by proxy, upon a proposal to approve payments that would otherwise result in parachute payments to disqualified individuals (as each of those terms are defined and used in Section 280G of the Internal Revenue Code of 1986, as amended). Section 280G of the Internal Revenue Code of 1986, the disqualified individuals and the nature of the payments are described more fully in the proxy statement/prospectus.

As described in the notice to stockholders dated April 30, 2003, if the proposed merger with CIENA is approved at the special meeting, WS Contract Corp., a Delaware corporation and wholly-owned subsidiary of WaveSmith, will merge with and into WaveSmith immediately prior to the merger of WaveSmith into CIENA. In connection with the merger of WS Contract Corp. into WaveSmith, the Third Amended and Restated Certificate of Incorporation of WaveSmith will be amended and restated in its entirety and the liquidation preferences of the shares of WaveSmith's preferred stock will be reduced.

WaveSmith's board of directors has carefully reviewed and considered the terms and conditions of the merger and the agreement and plan of merger and has concluded that the terms are fair to, and in the best interests of, WaveSmith and its stockholders. WaveSmith's board of directors recommends that you vote **FOR** approval and adoption of the merger and the agreement and plan of merger.

The agreement and plan of merger must be approved and adopted by the holders of (i) a majority of the outstanding shares of WaveSmith's common stock and preferred stock, voting as a single class on an as-converted basis, (ii) a majority of the outstanding shares of WaveSmith's series A and series A-1 preferred stock, voting together as a single class on an as-converted basis, (iii) 60% of the outstanding shares of WaveSmith's series B and series B-1 preferred stock, voting together as a single class on an as-converted basis, and (iv) 75% of the outstanding shares of WaveSmith's series C preferred stock, voting as a separate class on an as-converted basis. Stockholders of WaveSmith entitled to vote at the special meeting who collectively beneficially own approximately 25.5% of WaveSmith's common stock, 87.9% of WaveSmith's series A and A-1 preferred stock, on an as-converted basis, 81.0% of WaveSmith's series B and B-1 preferred stock, on an as-converted basis, 72.0% of WaveSmith's series C preferred stock, on an as-converted basis and 63.5% of WaveSmith's common stock and preferred stock together, on an as-converted basis, have already agreed to vote their shares in favor of the merger and the agreement and plan of merger. In order to ensure that certain payments to certain current and former directors, officers and employees of WaveSmith are not treated as parachute payments, the affirmative vote of more than 75% of the voting power of all outstanding capital stock of WaveSmith (other than stock held by the affected persons) is required to approve the proposal to approve these payments. **You are encouraged to review the enclosed proxy statement/prospectus and in particular review the matters referred to under Risk Factors starting on page 9.** Whether or not you plan to attend the special meeting, please take the time to vote by promptly completing the enclosed proxy card and mailing it in the postage-paid envelope provided to WaveSmith Networks, Inc., 35 Nagog Park, Acton, Massachusetts, 01720, Attention: Gregg Savage. **Your vote is very important.**

On Behalf of the Board of Directors,

Thomas Burkardt
Chief Executive Officer and President

Prospectus dated May 9, 2003
First mailed to stockholders on or about May 9, 2003

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 proxy statement/prospectus. Any representation to the contrary is a criminal offense.

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WAVESMITH NETWORKS, INC.

35 Nagog Park
Acton, MA 01720
(978) 929-9100

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON WEDNESDAY, JUNE 11, 2003

To the stockholders of WaveSmith Networks, Inc.:

A special meeting of the stockholders of WaveSmith Networks, Inc., a Delaware corporation, will be held at the offices of Testa, Hurwitz & Thibault, LLP, 125 High Street, Boston, Massachusetts, on Wednesday, June 11, 2003 at 10:00 a.m. Eastern Time for the following purposes:

1. To approve and adopt the merger and the agreement and plan of merger, dated as of April 9, 2003, by and between CIENA Corporation and WaveSmith pursuant to which WaveSmith will be merged with and into CIENA, with CIENA being the surviving corporation. A copy of the agreement and plan of merger is attached as Annex A to the proxy statement/prospectus accompanying this notice;
2. To approve the payments to Thomas Burkardt, John Burnham, Robert Dalias, Robert Doucette, Francis Fiorillo, Pamela Nelson, John O Hara, Robert O Neil, James Philippou, Michael Regan, Gregg Savage and Gary Styskal of amounts that would otherwise result in parachute payments under Section 280G of the Internal Revenue Code of 1986;
3. To grant discretionary authority to the WaveSmith board of directors to adjourn or postpone the WaveSmith special meeting to solicit additional votes to approve the matters considered at the meeting, if necessary; and
4. To consider and act upon any other matter which may properly come before the special meeting.

This proxy statement/prospectus and the proxy card are being furnished to the stockholders of WaveSmith in connection with the solicitation of proxies by WaveSmith's board of directors for use at the special meeting of stockholders.

WaveSmith's board of directors has approved the merger and the agreement and plan of merger and recommends that you vote **FOR** approval and adoption of the merger and agreement and plan of merger and **FOR** the grant of discretionary authority to adjourn the special meeting. The proposals are described in more detail in the accompanying proxy statement/prospectus, which you should read in its entirety before voting.

The board of directors has fixed the close of business on May 7, 2003 as the record date for determining the stockholders entitled to receive this notice, and to vote their shares at the meeting or any adjournment or postponement of the meeting. Only holders of record of common stock and preferred stock of WaveSmith at the close of business on the record date will be entitled to notice of, and to vote at, the meeting and any adjournment or postponement of the meeting. As of that date, there were (i) 79,663,130 shares of common stock outstanding, (ii) 185,000 shares of series A preferred stock outstanding, (iii) 9,015,000 shares of series A-1 preferred stock outstanding, (iv) 2,353,370 shares of series B preferred stock outstanding, (v) 33,333,331 shares of series B-1 preferred stock outstanding and (vi) 92,963,301 shares of series C preferred stock outstanding.

Each share of common stock is entitled to 1 vote on each matter brought properly before the meeting. Each share of preferred stock is entitled to a number of votes equal to the number of shares of common stock into which such share of preferred stock may be converted into pursuant to WaveSmith's certificate of incorporation. Each share of series A preferred stock is entitled to 2 votes for each matter brought properly before the meeting. Each share of series A-1 preferred stock is entitled to 3.51667 votes for each matter brought properly before the meeting. Each share of series B preferred stock is entitled to 1 vote for each matter brought properly before the meeting. Each share of series B-1 preferred stock is entitled to 2.4

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votes for each matter brought properly before the meeting. Each share of series C preferred stock is entitled to 1 vote for each matter brought properly before the meeting.

The representation in person, or by properly executed proxy, of the holders of a majority of all shares of capital stock entitled to vote at the special meeting is necessary to constitute a quorum at the special meeting of WaveSmith. In connection with the separate votes by the series A and series A-1 preferred stock, series B and series B-1 preferred stock and series C preferred stock, one-third of the outstanding shares of such class or classes of capital stock, present in person or represented by proxy, shall constitute a quorum entitled to take action at the WaveSmith special meeting and in favor of the other proposals.

Under Delaware law and the charter documents of WaveSmith, approval and adoption of the merger and the agreement and plan of merger requires the affirmative votes of (i) a majority of the outstanding shares of WaveSmith's common stock and preferred stock, voting as a single class on an as-converted basis, (ii) a majority of the outstanding shares of WaveSmith's series A and series A-1 preferred stock, voting as a single class on an as-converted basis, (iii) 60% of the outstanding shares of WaveSmith's series B and series B-1 preferred Stock, voting as a single class on an as-converted basis and (iv) 75% of the outstanding shares of WaveSmith's series C preferred stock, voting as a separate class on an as-converted basis. Under Section 280G of the Internal Revenue Code of 1986, the affirmative vote of more than 75% of the voting power of all outstanding capital stock of WaveSmith (other than stock held by the affected persons) is required to approve the proposal to approve payments to disqualified individuals of amounts that would otherwise result in parachute payments.

The board of directors has designated the two persons named on the enclosed proxy card, Thomas Burkardt and Gregg Savage, to serve as proxies in connection with the special meeting. All properly executed proxy cards will be voted (except to the extent that authority to vote has been withheld) and where a choice has been specified by the stockholder as provided in the proxy card, it will be voted in accordance with the specifications on the proxy card. If you sign and send in your proxy card and do not indicate how you want to vote, it will be voted in favor of approval of the merger and the agreement and plan of merger, the approval of the payments that would otherwise result in parachute payments and in favor of the other proposals. You may revoke a proxy prior to its execution by giving written notice to Mr. Savage, the Secretary of WaveSmith, by submission of another proxy bearing a later date, or by voting in person at the special meeting. Such notice or later dated proxy will not affect a vote on any matter taken prior to the receipt of the proxy revocation by WaveSmith. Abstentions from voting identified as such on the proxy card are treated as present or represented for purposes of determining the presence or absence of a quorum at the special meeting. However, abstentions will have the same effect as votes against the merger and the agreement and plan of merger and the other proposals.

The proxy statement/prospectus materials are being mailed on or about May 9, 2003 to holders of record of WaveSmith's capital stock as of May 7, 2003. The principal executive office and mailing address of WaveSmith is 35 Nagog Park, Acton, MA 01720.

WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, PLEASE SIGN, DATE AND PROMPTLY RETURN THE ENCLOSED PROXY CARD, WHICH YOU MAY REVOKE AT ANY TIME PRIOR TO ITS USE. PROMPTLY SIGNING AND RETURNING YOUR PROXY CARD WILL HELP ENSURE THE PRESENCE OF A QUORUM FOR THE MEETING. A postage-paid, self-addressed envelope is enclosed for your convenience. Your shares will be voted at the meeting in accordance with your proxy.

By Order of the Board of Directors,

Thomas Burkardt, Chief Executive Officer
and President

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This proxy statement/ prospectus incorporates important business and financial information about CIENA from documents that it has filed with the Securities and Exchange Commission but that have not been included in or delivered with this proxy statement/ prospectus. For a listing of documents incorporated by reference into this proxy statement/ prospectus, please see the section entitled "Where You Can Find More Information" beginning on page 85 of this proxy statement/ prospectus.

CIENA will provide you with copies of this information, 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.

In order for you to receive timely delivery of the documents in advance of the special meeting, CIENA should receive your request no later than June 4, 2003.

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QUESTIONS AND ANSWERS ABOUT THE MERGER

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

A: The special meeting will be held on Wednesday June 11, 2003 at 10:00 a.m. local time, at the offices of Testa, Hurwitz & Thibault, LLP, 125 High Street, Boston, Massachusetts.

Q: What do I need to do now?

A: You should carefully read and consider the information contained in this proxy statement/prospectus. You should then complete and sign your proxy card and return it in the enclosed return envelope as soon as possible so that your shares will be represented at WaveSmith's special meeting. If you sign, date and mail your proxy card without identifying how you want to vote, your proxy will be voted **FOR** the merger, **FOR** the approval of the payments that would otherwise result in parachute payments and **FOR** the grant of discretionary authority to adjourn the special meeting. If you do not vote, it will have the same effect as a vote **AGAINST** the proposals. You may also vote by appearing at the meeting and voting in person.

Q: Who must approve the merger?

A: In addition to the approvals of the boards of directors of CIENA and WaveSmith which have already been obtained, the following approvals of the stockholders of WaveSmith must be obtained:

holders of a majority of WaveSmith's common stock and preferred stock, voting as a single class on an as-converted basis;

holders of a majority of WaveSmith's series A and series A-1 preferred stock, voting together as a single class on an as-converted basis;

holders of 60% of WaveSmith's series B and series B-1 preferred stock, voting together as a single class on an as-converted basis; and

holders of 75% of WaveSmith's series C preferred stock, voting as a separate class on an as-converted basis.

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 WaveSmith'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 at the address on page 15. 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.** You will receive instructions for exchanging your stock certificates if the merger is consummated.

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 proxy statement/prospectus or the enclosed proxy, you should contact Gregg Savage, WaveSmith's Chief Financial Officer and Secretary at (978) 489-2103.

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SUMMARY

*This summary highlights selected information from this proxy statement/prospectus. It does not contain all of the information that is important to you. You should carefully read this proxy statement/prospectus and the other documents incorporated by reference into this proxy statement/prospectus. See *Where You Can Find More Information* on page 85. In this proxy statement/prospectus, we, us and our may refer to either CIENA or WaveSmith, depending on the context in which they are used, and you and your refer to stockholders of WaveSmith.*

The Companies (page 61)

CIENA Corporation

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

CIENA is a leader in intelligent optical networking systems and software, offering telecommunications network solutions to service providers and enterprises worldwide. CIENA's customers include long-distance carriers, local exchange carriers, Internet service providers, wireless and wholesale carriers, systems integrators, governmental, large businesses and non-profit institutions. CIENA offers network solutions that enable service providers to provision, manage and deliver economic, high-bandwidth services to their customers.

WaveSmith Networks, Inc.

35 Nagog Park
Acton, MA 01720
(978) 929-9100

WaveSmith designs, develops and markets a next generation multi-service switch platform designed to empower telecommunications carriers to cap their investments in aging technology, while they begin deploying next-generation platforms. In this way, WaveSmith's products embrace carriers' near-term, tactical requirements as well as their longer-term strategic visions. WaveSmith's Distributed Node (DN) multi-service switch platform is designed from the ground up to sustain and leverage today's layer 2 infrastructure while incorporating an evolutionary path to future technologies.

Vote Required for the Merger (page 13)

Under Delaware law and WaveSmith's certificate of incorporation, the following stockholder approvals are required to approve the merger:

holders of a majority of WaveSmith's common stock and preferred stock, voting as a single class on an as-converted basis;

holders of a majority of WaveSmith's series A and series A-1 preferred stock, voting together as a single class on an as-converted basis;

holders of 60% of WaveSmith's series B and series B-1 preferred stock, voting together as a single class on an as-converted basis; and

holders of 75% of WaveSmith's series C preferred stock, voting as a separate class on an as-converted basis.

There were 79,663,130 shares of WaveSmith common stock and 137,850,002 shares of WaveSmith preferred stock, comprised of 185,000 shares of WaveSmith series A preferred stock, 9,015,000 shares of WaveSmith series A-1 preferred stock, 2,353,370 shares of WaveSmith series B preferred stock, 33,333,331 shares of WaveSmith series B-1 preferred stock and 92,963,301 shares of WaveSmith series C preferred stock outstanding as of May 7, 2003. Each holder of WaveSmith common stock is entitled to one vote per share and each holder of WaveSmith preferred stock is entitled to one vote for each full share of common stock into which its shares of preferred stock are convertible.

As of the record date, WaveSmith's officers and directors and their affiliates owned approximately 48.9% of WaveSmith's outstanding common stock, 87.9% of WaveSmith's outstanding series A and A-1 preferred stock on an as-converted basis, 81.0% of WaveSmith's outstanding series B and B-1 preferred stock on an as-converted basis and 54.1% of WaveSmith's outstanding series C preferred stock on an as-converted basis.

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Several WaveSmith stockholders beneficially owning in the aggregate the following numbers of shares entered into agreements under which they agreed to vote their shares in favor of the merger and approval of the merger agreement:

182,175,585 shares, representing 63.5% of WaveSmith's common stock and preferred

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stock, voting as a single class on an as-converted basis;

28,203,689 shares, representing 87.9% of WaveSmith's series A and series A-1 preferred stock, together on an as-converted basis;

66,666,661 shares, representing 81.0% of WaveSmith's series B and series B-1 preferred stock, together on an as-converted basis; and

66,961,835 shares, representing 72.0% of WaveSmith's series C preferred stock, as a separate class on an as-converted basis.

Additionally, CIENA's wholly-owned subsidiary, MultiWave Investment, Inc., owns 16,666,667 shares of series C preferred stock, representing 17.9% of WaveSmith's series C preferred stock, which it intends to vote in favor of the merger and approval of the merger agreement.

The Merger (page 17)

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

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

Reasons for the Merger and Recommendation of the WaveSmith Board of Directors (page 25)

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

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

What you will receive in the Merger (page 36)

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

The formulas by which the number of shares of CIENA common stock to be received for each share of WaveSmith capital stock are fixed. The number of shares of CIENA common stock to be received for each share of WaveSmith capital stock is subject to adjustment only in the event that WaveSmith's fully-diluted outstanding capital stock changes due to option issuances, stock repurchases and similar events. Any issuance of WaveSmith capital stock due to the exercise of options or warrants currently outstanding will not affect the exchange ratios, as they are calculated on a fully-diluted, or fully-exercised, basis. WaveSmith stockholders will not know the value of the CIENA common stock they will receive in the merger when the special meeting of the WaveSmith stockholders is held. The value of the CIENA common stock will depend upon its market price when the merger is completed. The number of shares of CIENA common stock received will depend upon the number of shares of WaveSmith capital stock outstanding on the day the merger is completed.

For example, if the total number of shares of WaveSmith capital stock outstanding on a fully-diluted basis on the day the merger is completed is 291,793,926, which is the number of shares of capital stock outstanding on a fully-diluted basis on the record date, the following exchange ratios, rounded to the nearest ten thousandth, would apply:

Class of WaveSmith Stock	Exchange Ratio
Common Stock	0.0851
Series A Preferred	0.3857
Series A-1 Preferred	0.4422
Series B Preferred	0.2512
Series B-1 Preferred	0.3118
Series C Preferred	0.1458

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The following chart gives a few examples of the number of shares of CIENA common stock that a holder of 100 shares of WaveSmith common stock would receive in the merger, assuming the application of the exchange ratio from the above table, and the value of those shares at a range of prices of CIENA common stock. The chart does not

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include cash received for fractional shares or cash paid in respect of dissenting shares.

Illustrative Closing Price of CIENA Common Stock at Closing	Number of Shares of CIENA Common Stock Issued at Closing to the Holder of 100 Shares of WaveSmith Common Stock	Value of Shares of CIENA Common Stock Issued at Closing to the Holder of 100 Shares of WaveSmith Common Stock
\$7.00	8	\$56.00
\$6.00	8	\$48.00
\$5.52*	8	\$44.16
\$5.00	8	\$40.00
\$4.00	8	\$32.00

* The closing price of CIENA common stock on May 7, 2003.

See Terms of the Merger Agreement and Related Transactions Exchange of Certificates; Fractional Shares on page 37.

Please do not send your stock certificates at this time.

Total Consideration CIENA Will Pay

At the effective time of the merger, CIENA will issue approximately 35,389,096 shares of its common stock in exchange for all WaveSmith outstanding common and preferred stock, including shares of series C preferred stock owned by MultiWave Investment, Inc. As of May 7, 2003, these shares have an aggregate value of approximately \$195 million. Additionally, CIENA will assume the obligation to issue an additional approximately 658,402 shares of CIENA common stock on the exercise of outstanding options and warrants. This assumes that the number of shares of WaveSmith's capital stock outstanding on a fully-diluted basis on the day the merger is completed is 291,793,926.

Appraisal Rights of Dissenting Stockholders (page 33)

If you object to the merger, Delaware law permits you to seek relief as a dissenting stockholder and have the fair value of your shares of WaveSmith common stock and WaveSmith preferred stock determined by a court and paid to you in cash.

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

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

abstain from voting;

fail to vote; or

if you returned a duly executed proxy and revoke your proxy prior to the special meeting.

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

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

Indemnification and Escrow Agreement (page 43)

If the merger occurs, all holders of WaveSmith capital stock who have not elected the appraisal rights described above, will be obligated to indemnify CIENA and its affiliates against losses due to, among other things, the breach or inaccuracy of any of WaveSmith's representations and warranties made in the merger agreement. This obligation is limited to 10% of the total number of shares of CIENA common stock issued in the merger to holders of outstanding WaveSmith capital stock and 10% of the total number of shares of CIENA common stock which is allocable to vested WaveSmith options which are assumed in the merger. An escrow arrangement will be established at closing to hold these amounts. Michael Feinstein, who is a member of WaveSmith's board of directors and a senior principal of Atlas Venture will serve as Stockholder Representative on behalf of all former WaveSmith stockholders. Investment funds affiliated with Atlas Venture are significant stockholders of WaveSmith. See Security Ownership of Directors, Executive Officers and More Than Five Percent Stockholders of WaveSmith. The escrow

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and indemnification obligations will end one year after closing. At that time, the escrowed shares will be released to the former WaveSmith stockholders, reduced by any amounts paid or reserved for claims made by CIENA. WaveSmith stockholders will also contribute a total of 53,011 shares of CIENA common stock to the escrow fund to pay the expenses of the Stockholder Representative. These shares had a value of \$250,000 on April 9, 2003 and a value of approximately \$292,621 on May 7, 2003. See Terms of the Merger Agreement and Related Transactions Indemnification and Escrow Arrangement.

Consequently, in some circumstances you could be required to forfeit to CIENA some of the CIENA common stock you would otherwise receive in the merger.

What is Needed to Complete the Merger (page 44)

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

adoption of the merger by the WaveSmith stockholders as described above; and

other customary contractual conditions set forth in the merger agreement.

If the law permits, CIENA or WaveSmith may each waive conditions for the benefit of its company and stockholders and complete the merger even though one or more of these conditions has not been met. WaveSmith's stockholder approval cannot be waived. If a material condition is waived by WaveSmith, we will 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; Expenses (page 45)

CIENA and WaveSmith may mutually agree at any time to terminate the merger agreement without completing the merger, even if the WaveSmith 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 August 15, 2003, or, if extended by CIENA under certain conditions, October 15, 2003;

WaveSmith stockholders do not approve the merger; or

a court forbids the merger to occur.

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

the WaveSmith board of directors determines to enter into an alternative transaction that it views as superior to the merger, and

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

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

WaveSmith has agreed to pay CIENA a termination fee of \$5.1 million if the merger agreement is terminated under either of these circumstances and specified other circumstances if a third party has made an offer to acquire WaveSmith. The merger agreement also requires WaveSmith to reimburse CIENA for its out-of-pocket expenses, up to a maximum of \$500,000, in those situations where the termination fee is payable.

Further, under a letter agreement entered into by CIENA, WaveSmith and MultiWave Investment,

Inc., a wholly-owned subsidiary of CIENA in connection with WaveSmith's series C preferred stock financing in September 2002, if prior to July 1, 2003 WaveSmith enters into a business combination with a party other than CIENA, WaveSmith will be liable to CIENA for a termination fee equal to 5% of the value of that transaction.

In the event that:

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CIENA terminates the merger agreement for reasons other than because the WaveSmith board of directors determined to enter into an alternative transaction that it views as superior to the merger;

WaveSmith terminates the merger agreement because the August 15 or October 15 expiration date occurs, stockholder approval is not obtained or an order of a court prevents completion of this transaction; or

the merger agreement is terminated by either party because the waiting period

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under the Hart-Scott-Rodino Antitrust Improvement Act of 1976 has not expired or been terminated, then, the reseller agreement between CIENA and WaveSmith, the letter agreement referred to above between CIENA, MultiWave Investment, Inc. and WaveSmith and the agreements CIENA has with several holders of WaveSmith capital stock will also terminate.

Merger of WS Contract Corp. into WaveSmith

As part of the negotiations of the terms of the merger of WaveSmith into CIENA, WaveSmith and CIENA agreed that the CIENA stock to be issued as consideration in connection with the merger should be distributed in a manner that differed from the results obtained under the existing charter documents of WaveSmith. The distribution agreed upon by the parties resulted in a greater number of shares being allocated to the holders of WaveSmith common stock. Stockholders of WaveSmith have approved the merger of WS Contract Corp. into WaveSmith and the related changes to the charter documents of WaveSmith immediately prior to the merger of WaveSmith into CIENA to implement this change. The changes to the WaveSmith charter documents reduces the preference amounts for each series of preferred stock of WaveSmith as follows:

Class of Stock	Original Preference Amount	New Preference Amount
Series A Preferred Stock	\$ 1.25	\$ 1.016030
Series A-1 Preferred Stock	1.25	0.673904
Series B Preferred Stock	0.90	0.783015
Series B-1 Preferred Stock	0.90	0.506835
Series C Preferred Stock	0.45	0.286181

See Terms of the Merger Agreement and Related Transactions Merger of WS Contract Corp. into WaveSmith.

Federal Income Tax Consequences (page 30)

In the opinion of Hogan & Hartson L.L.P., counsel to CIENA, and Testa, Hurwitz & Thibault, LLP, counsel to WaveSmith, the merger will qualify as a tax-free reorganization. As a general matter, therefore, no gain or loss will be recognized by WaveSmith stockholders on the exchange of their WaveSmith capital stock for CIENA common stock pursuant to the reorganization, except with respect to cash received in lieu of fractional shares and cash received in exchange of WaveSmith shares by WaveSmith stockholders who dissent to the merger. There is an exception to the general tax-free treatment, however, resulting from the merger of WS Contract Corp. into WaveSmith immediately prior to the merger of WaveSmith into CIENA. This transaction will cause the value of the WaveSmith common stock to be increased, resulting in WaveSmith common stockholders receiving a greater number of shares of CIENA common stock pursuant to the merger than such stockholders would have received if the merger of WS Contract Corp. into WaveSmith had not occurred. Although the matter is not free from doubt, CIENA and WaveSmith believe that this additional value should be taxed to the WaveSmith common stockholders as ordinary income. For a further discussion of the federal income tax consequences of these transactions, 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.

Approval of Payments that Would Otherwise Result in Parachute Payments (page 49)

In connection with the change in control that results from the merger of WaveSmith into CIENA, certain current and former directors, officers and employees will receive payments that could constitute so-called parachute payments under the Internal Revenue Code of 1986. For these individuals, these payments may arise as a result of the following:

the value of grants of, and acceleration of vesting in, shares of restricted WaveSmith common stock;

the value of acceleration of options to acquire WaveSmith common stock;

the increase in value of WaveSmith common stock resulting from the merger of WS Contract Corp. into WaveSmith and treated, for federal income tax purposes, as compensation; and

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the value of severance payments and certain other benefits received or to be received pursuant to the terms of letter agreements with existing and recently departed executives.

Under the Internal Revenue Code of 1986, an amount paid to certain individuals in connection with a change in control is a parachute payment only if the aggregate present value of all payments made to an individual in connection with the change in control exceeds three times the affected individual's base amount. An amount is an excess parachute payment to the extent the amount exceeds one times the affected individual's base amount. To the extent payments are excess parachute payments, they are not deductible by the corporation and an excise tax (in addition to regular income and employment taxes) is imposed on the recipient. However, payments will not be treated as parachute payments if holders of more than 75% of the voting power of all outstanding capital stock of WaveSmith, other than the affected persons, approve these payments. If the payments are not approved, each affected individual has agreed to forego the portion of the payments that would cause the individual to receive a parachute payment. You are being asked to vote to approve these payments by a separate vote from your vote on the merger. CIENA's subsidiary, MultiWave Investments, Inc., intends to vote its 16,666,667 shares of Series C preferred stock in favor of the proposal to approve the payments. For a further discussion of the treatment of these payments and shareholder approval of these payments, see Approval of Change in Control Payments for Federal Income Tax Purposes.

Table of Contents**SUMMARY SELECTED CONSOLIDATED HISTORICAL****FINANCIAL DATA OF CIENA****Summary Selected Consolidated Historical Financial Data of CIENA**

The information in the following summary selected consolidated financial data as of October 31, 1998, 1999, 2000, 2001 and 2002 and for the years ended October 31, 1998, 1999, 2000, 2001 and 2002 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 proxy statement/prospectus. See *Where You Can Find More Information* which begins on page 85. CIENA's financial statements as of October 31, 2001 and 2002 and for each of the three years ended October 31, 2002 were audited by PricewaterhouseCoopers LLP, independent accountants. Selected financial information as of January 31, 2002 and 2003 and for the three months then ended is derived from CIENA's unaudited consolidated financial statements, which are incorporated into this 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 1998, 1999, 2000 and 2002 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,	
	1998	1999	2000	2001	2002	2002	2003
	(in thousands)						
Balance Sheet Data:							
Cash and cash equivalents	\$250,714	\$143,440	\$143,187	\$397,890	\$377,189	\$472,533	\$305,053
Working capital	391,305	427,471	639,675	1,936,707	1,413,839	1,653,035	1,154,876
Total assets	602,809	677,835	1,027,201	3,317,301	2,751,022	3,218,778	2,543,066
Long-term obligations, excluding current portion	3,029	4,881	4,882	869,865	999,935	695,740	875,395
Stockholders' equity	\$501,036	\$530,473	\$809,835	\$2,128,982	\$1,527,269	\$2,068,365	\$1,427,195

	Year Ended October 31,					Three Months Ended Jan. 31,	
	1998	1999	2000	2001	2002	2002	2003
	(in thousands, except per share data)						
Statement of Operations Data:							
Revenue	\$508,087	\$482,085	\$858,750	\$1,603,229	\$361,155	\$162,156	\$70,474
Provision (benefit) for excess and obsolete inventory costs	9,617	6,534	15,022	68,411	286,475	20,414	(2,657)
Cost of goods sold	246,397	293,235	462,371	836,138	309,559	119,273	56,866
Gross profit (loss)	252,073	182,316	381,357	698,680	(234,879)	22,469	16,265
Operating expenses:							
Research and development (exclusive of \$0, \$0, \$0, \$17,783, \$15,672, \$3,951 and \$3,798 deferred stock compensation costs)	71,186	101,006	125,434	235,831	239,619	64,756	53,734
Selling and marketing (exclusive of \$0, \$0, \$0, \$8,378, \$3,560, \$956 and \$759 deferred stock	47,343	61,603	90,922	146,949	130,276	37,600	26,605

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compensation costs)							
General and administrative (exclusive of \$40, \$40, \$40, \$15,206, \$1.092, \$227 and \$374 deferred stock compensation costs)	18,428	22,696	33,960	57,865	50,820	13,655	12,206
Settlement of accrued contract obligation			(8,538)				
Deferred stock compensation costs	40	40	40	41,367	20,324	5,134	4,931
Amortization of goodwill	2,341	3,197	3,197	177,786			

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	Year Ended October 31,					Three Months Ended Jan. 31,	
	1998	1999	2000	2001	2002	2002	2003
(in thousands, except per share data)							
Amortization of intangible assets (exclusive of \$0, \$0, \$0, \$0, \$0, \$0 and \$381 included in cost of goods sold related to certain technology licenses)	229	438	438	4,413	8,972	1,813	3,554
In-process research and development	9,503			45,900			
Restructuring costs				15,439	225,429	6,828	
Goodwill impairment				1,719,426	557,286		
Nortel settlement costs							2,500
Pirelli litigation	30,579				1,792		
Merger related costs	2,548	13,021					
Provision for doubtful accounts	806	250	28,010	(6,579)	14,813		
Total operating expenses	183,003	202,251	273,463	2,438,397	1,249,331	129,786	103,530
Income (loss) from operations	69,070	(19,935)	107,894	(1,739,717)	(1,484,210)	(107,317)	(87,265)
Other income (expense), net	12,830	13,944	12,680	32,988	(2,554)	361	(19,518)
Income (loss) before income taxes	81,900	(5,991)	120,574	(1,706,729)	(1,486,764)	(106,956)	(106,783)
Provision (benefit) for income taxes	36,200	(2,067)	39,187	87,333	110,735	(36,365)	359
Net income (loss)	\$ 45,700	\$ (3,924)	\$ 81,387	\$(1,794,062)	\$(1,597,499)	\$ (70,591)	\$(107,142)
Basic net income (loss) per common share	\$ 0.19	\$ (0.01)	\$ 0.29	\$ (5.75)	\$ (4.37)	\$ (0.22)	\$ (0.25)
Diluted net income (loss) per common and dilutive potential common share	\$ 0.18	\$ (0.01)	\$ 0.27	\$ (5.75)	\$ (4.37)	\$ (0.22)	\$ (0.25)
Weighted average basic common shares outstanding	235,980	267,042	281,621	311,815	365,202	327,620	432,572
Weighted average basic common and dilutive potential common shares outstanding	255,788	267,042	299,662	311,815	365,202	327,620	432,572

Significant events affecting CIENA's operating trendsThe 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 1998, CIENA incurred special charges of \$30.6 million related to the Pirelli litigation, \$2.6 million of merger related costs associated with the contemplated merger with Tellabs and \$9.5 million in-process research and development charge associated with the acquisition of Terabit Technology. In fiscal 1999, CIENA incurred \$13.0 million of merger related costs associated with the purchase of Lightera and Omnia. 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. In fiscal 2002, CIENA recorded a \$286.5 million provision for excess and obsolete inventory, \$225.4 million for restructuring costs to close facilities, dispose of certain excess equipment and terminate employees, and \$557.3 million related to goodwill impairment. During the three months ended January 31, 2002, CIENA recorded \$6.8 million of restructuring costs associated with exiting facilities and terminating employees. The operating results have been significantly impacted by the acquisitions of Lightera and Omnia in 1999, Cyras Systems in 2001 and ONI Systems in 2002.

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RISK FACTORS

In addition to the risks described in CIENA's most recently filed Form 10-Q, 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 proxy statement/prospectus. See "Where You Can Find More Information" on page 85.

The value of the CIENA common stock that WaveSmith 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 WaveSmith 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 WaveSmith stockholders in the merger to decline. The market price of CIENA common stock is extremely volatile and has fluctuated over a wide range. From May 7, 2002 to May 7, 2003, CIENA common stock traded as high as \$7.74 per share and as low as \$2.41 per share. From April 8, 2003, the last trading day prior to the date on which the merger was announced, through May 7, 2003, the price of CIENA common stock has increased approximately 18%. 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;

continued low levels 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 WaveSmith stockholders will receive in the merger. CIENA has agreed to issue approximately 36,047,498 shares of CIENA common stock for all of WaveSmith outstanding capital stock, including the assumption of outstanding options to acquire WaveSmith stock. This represented a value of approximately \$170 million on April 8, 2003, based on a per share price for CIENA common stock of \$4.716, which is the average of the closing price for CIENA's common stock for the last five trading days prior to the date on which the merger was announced. This amount, however, includes approximately 2,430,044 shares issuable in respect of shares of WaveSmith series C preferred stock that CIENA already owns.

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 WaveSmith. If the price of CIENA common stock decreases, WaveSmith would not be able to terminate the merger, even though its stockholders would receive less value for their shares of WaveSmith. The value of the aggregate consideration to be received by WaveSmith stockholders was calculated on April 9, 2003, the date the merger agreement was executed, using the average closing price for CIENA common stock for the five days ending on April 8, 2003, which was \$4.716. On May 7, 2003, the closing price of CIENA common stock had increased to \$5.52, thereby increasing the value of the consideration to be paid for all of WaveSmith outstanding capital stock and stock options to approximately \$199 million.

Directors and officers of WaveSmith 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 WaveSmith when considering the WaveSmith board of directors' recommendation of the merger agreement. Some directors and executive officers of WaveSmith have interests in the merger that are in addition to, or different from, their interests as WaveSmith stockholders. These interests are described under "The Merger - Interests of Executive Officers and Directors in the Merger" on page 27.

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These interests include:

Accelerated Vesting of Restricted Stock. WaveSmith's right to repurchase an aggregate of 16,795,825 shares of WaveSmith common stock held by executive officers and directors will terminate upon completion of the merger.

Directors and Officers Insurance; Indemnification of WaveSmith's Directors and Officers. Under the merger agreement, CIENA will purchase insurance and provide indemnification for present and former directors of WaveSmith with respect to acts and omissions in their capacities as directors and officers of WaveSmith, for six years following closing, including acts and omissions relating to the merger.

Reallocation of Consideration to Common Stockholders. As a result of the merger of WS Contract Corp. into WaveSmith immediately prior to the merger of WaveSmith into CIENA, the value of the WaveSmith common stock will be increased, resulting in WaveSmith common stockholders, including stockholders who are executive officers of WaveSmith, receiving a greater number of shares of CIENA common stock pursuant to the merger than such stockholders would have received if the merger of WS Contract Corp. into WaveSmith had not occurred.

The acceleration of vesting, grant of restricted stock, payment of severance benefits and the increase in value of the WaveSmith common stock resulting from the merger of WS Contract Corp. into WaveSmith, in the case of some individuals, may be deemed to trigger a parachute payment, with significant adverse tax consequences to the affected persons. In order to avoid these consequences, stockholders of WaveSmith are being asked to approve the payments, to the extent the payments would cause the affected individuals to receive parachute payments, by separate vote at the meeting to which this proxy statement/prospectus relates.

The structure and implementation of the merger involve a number of risks including risks of integration, unknown liabilities, tax, securities and accounting matters.

The merger involves the combination of CIENA with a private company with limited operating history and is a complex transaction. Among the risks the merger involves are risks of successful integration, potential liabilities that may be incurred as a result of the merger, tax consequences, securities law matters and accounting treatment.

Successful integration involves numerous risks, including:

assimilating WaveSmith's 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;

diversion of management attention 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;

making significant cash expenditures that may be required to retain personnel, eliminate unnecessary resources and integrate the business;

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 that impair relationships with employees, customers or vendors.

In addition, as a result of the merger, CIENA will succeed to any liabilities of WaveSmith now existing or arising out of WaveSmith's businesses prior to closing, including unknown liabilities. These liabilities may include liabilities to customers, suppliers or employees, as well as potential liabilities that can arise from intellectual property disputes.

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The merger also involves complex tax, securities law and accounting issues, some of which entail risks that may affect the combined company or the former WaveSmith stockholders. For instance, while the federal income tax consequences of the merger are the subject of opinions of counsel and are discussed below in Federal Income Tax Consequences, CIENA will not request a ruling from the Internal Revenue Service as to the tax consequences of the merger, and opinions of counsel are not binding on the IRS or the courts. There is some uncertainty as to whether obtaining the agreements of stockholders to vote in favor of the merger prior to filing a registration statement with the SEC complies with the registration requirements of the Securities Act. While the parties believe that the merger will result in the federal income tax consequences described herein, and that the merger has been and will be effected in compliance with applicable securities and other laws, there can be no assurance that this is the case. CIENA will also be required to make estimates of the fair market value of certain acquired assets and liabilities which will depend on predictions about future developments. If these predictions are incorrect CIENA may be required to record adjustments to its financial statements in the future.

Failure to overcome these risks or any other problems encountered in connection with the merger could have a material adverse effect on CIENA's business, results of operations and financial condition.

The current telecommunications industry 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 telecommunications equipment. Continued weak demand for telecommunications equipment of CIENA and WaveSmith 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.

WaveSmith common stockholders may be required to bear the market risk for income taxes due as a result of the merger of WS Contract Corp. into WaveSmith.

As a result of the merger of WS Contract Corp. into WaveSmith immediately prior to the merger of WaveSmith into CIENA, the value of the WaveSmith common stock will be increased, resulting in WaveSmith common stockholders receiving a greater number of shares of CIENA common stock pursuant to the merger than such stockholders would have received if the merger of WS Contract Corp. into WaveSmith had not occurred. Although the matter is not free from doubt, CIENA and WaveSmith believe that the additional value received by the WaveSmith common stockholders, as a result of the increased value of the WaveSmith common stock, should be taxed to the WaveSmith common stockholders as ordinary income, as discussed below, under the heading The Merger Federal Income Tax Consequences. Accordingly, the WaveSmith common stockholders may be required to recognize the ordinary income attributable to the merger of WS Contract Corp. into WaveSmith, even though they may not be able to satisfy this liability by immediately selling the shares of CIENA common stock received in the merger with CIENA. If the value of the additional shares of CIENA common stock declines between the effective time of the merger of WS Contract Corp. and WaveSmith and the date such shares are sold, such sale will result in a capital loss in certain circumstances. The ability to offset capital losses against ordinary income is limited. For a further discussion of the federal income tax consequences of these transactions, see The Merger Federal Income Tax Consequences.

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FORWARD-LOOKING STATEMENTS

Some of the statements contained, or incorporated by reference, in this 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, 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 9 and throughout this proxy statement/prospectus.

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THE SPECIAL MEETING OF WAVESMITH NETWORKS, INC. STOCKHOLDERS

General

WaveSmith is furnishing this proxy statement/prospectus to its stockholders in connection with the solicitation of proxies by the WaveSmith board of directors for use at the special meeting of stockholders of WaveSmith to be held on Wednesday, June 11, 2003, and at any adjournment or postponement thereof. This document is also being furnished to WaveSmith 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 WaveSmith on or about May 9, 2003.

Date, Time and Place

The special meeting will be held on Wednesday, June 11, 2003 at 10:00 a.m., local time, at the offices of Testa, Hurwitz & Thibault, LLP, 125 High Street, Boston, Massachusetts. WaveSmith's telephone number is (978) 929-9100.

Purpose of the Special Meeting

The purpose of the WaveSmith special meeting is to consider and vote upon proposals to:

1. Approve and adopt the Agreement and Plan of Merger, dated as of April 9, 2003, between CIENA Corporation, a Delaware corporation, and WaveSmith pursuant to which WaveSmith will be merged with and into CIENA, with CIENA being the surviving corporation;
2. To approve the payments to Thomas Burkardt, John Burnham, Robert Dalias, Robert Doucette, Francis Fiorillo, Pamela Nelson, John O Hara, Robert O Neil, James Philippou, Michael Regan, Gregg Savage and Gary Styskal of amounts that would otherwise result in parachute payments under Section 280G of the Internal Revenue Code of 1986;
3. Grant the WaveSmith board of directors discretionary authority to adjourn the special meeting to solicit additional votes for approval and adoption of the matters being considered at the meeting; and
4. Consider and act upon any other matter which may properly come before the special meeting.

Record Date and Voting

Holders of record of shares of WaveSmith common stock and preferred stock at the close of business on May 7, 2003, referred to in this proxy statement/prospectus as the record date, are entitled to notice of and to vote at the WaveSmith special meeting. On the record date, there were outstanding

79,663,130 shares of common stock,

185,000 shares of series A preferred stock,

9,015,000 shares of series A-1 preferred stock,

2,353,370 shares of series B preferred stock,

33,333,331 shares of series B-1 preferred stock and

92,963,301 shares of series C preferred stock.

Each share of common stock is entitled to 1 vote on each matter brought properly before the meeting. Each share of preferred stock is entitled to a number of votes equal to the number of shares of common stock into which such share of preferred stock may be converted into

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pursuant to WaveSmith certificate of incorporation. Each share of series A preferred stock is entitled to 2 votes for each matter brought properly before the meeting. Each share of series A-1 preferred stock is entitled to 3.51667 votes for each matter brought properly before the meeting. Each share of series B preferred stock is entitled to 1 vote for each

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matter brought properly before the meeting. Each share of series B-1 preferred stock is entitled to 2.4 votes for each matter brought properly before the meeting. Each share of series C preferred stock is entitled to 1 vote for each matter brought properly before the meeting. However, as described below, approval of the merger requires special votes of preferred stockholders.

Generally, the representation, in person or by properly executed proxy, of the holders of a majority of all the shares of capital stock issued and outstanding and entitled to vote at the WaveSmith special meeting is necessary to constitute a quorum at the WaveSmith special meeting. In connection with the separate vote by the series A and series A-1 preferred stock, series B and series B-1 preferred stock and series C preferred stock, one-third of the outstanding shares of such class or classes of capital stock, present in person or represented by proxy, shall constitute a quorum entitled to take action at the WaveSmith special meeting. If you sign and send in your proxy card and do not indicate how you want to vote, it will be voted in favor of approval of the merger and the agreement and plan of merger and in favor of the other proposals.

Under Delaware law and the charter documents of WaveSmith, approval of the merger and the agreement and plan of merger requires the affirmative vote of:

a majority of the outstanding shares of WaveSmith's common stock and preferred stock, voting as a single class on an as-converted basis;

a majority of the outstanding shares of WaveSmith's series A and series A-1 preferred stock, voting together as a single class on an as-converted basis;

60% of the outstanding shares of WaveSmith's series B and series B-1 preferred stock, voting together as a single class on an as-converted basis; and

75% of the outstanding shares of WaveSmith's series C preferred stock, voting as a separate class on an as-converted basis.

In order to ensure that certain payments made to certain current and former directors, officers and employees of WaveSmith are not treated as parachute payments, the affirmative vote of more than 75% of the voting power of all outstanding capital stock of WaveSmith (other than stock held by the affected persons) is required to approve these payments. Abstentions from voting identified as such on the proxy card are treated as present or represented for purposes of determining the presence or absence of a quorum at the special meeting. However, abstentions will have the same effect as votes against the merger and the proposal regarding the parachute payments.

As of the close of business on the record date for the special meeting, WaveSmith directors and executive officers (and their respective affiliates) held approximately 38,936,610 shares of WaveSmith common stock and 145,165,518 shares of WaveSmith preferred stock on an as converted basis or approximately 48.9% and 70.0% of the shares of WaveSmith common stock and preferred stock entitled to vote at the special meeting, excluding options and warrants to purchase WaveSmith common stock or preferred stock which were unexercised as of the record date. In addition, directors, executive officers and stockholders of WaveSmith beneficially owning

182,175,585 shares, representing 63.5% of WaveSmith's common stock and preferred stock, voting as a single class on as as-converted basis,

28,203,689 shares, representing 87.9% of WaveSmith's series A and series A-1 preferred stock, together on an as-converted basis,

66,666,661 shares, representing 81.0% of WaveSmith's series B and series B-1 preferred stock, together on an as-converted basis, and

66,961,835 shares, representing 72.0% of WaveSmith's series C preferred stock, voting as a separate class on an as-converted basis,

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have entered into agreements, pursuant to which they have agreed to vote their WaveSmith shares in favor of adoption and approval of the merger agreement and approval of the merger, against any proposal made in opposition to, or in competition with, the merger, and against any proposal intended to impede, frustrate, prevent or nullify the merger, or that could reasonably be expected to change the voting rights of the capital stock. In addition, a majority of the stockholders that have signed a voting agreement have granted CIENA an option to purchase its shares at the merger price, for cash, in the event the merger agreement is terminated by WaveSmith to allow WaveSmith to pursue an offer for WaveSmith that its board considers superior. See the section entitled **The Merger Interests of Directors and Officers of WaveSmith in the Merger**. As of the close of business on the record date, CIENA, through its wholly-owned subsidiary, MultiWave Investment, Inc., owned 16,666,667 shares of WaveSmith series C preferred stock, representing approximately 17.9% of WaveSmith series C preferred stock, which it intends to vote in favor of the merger and approval of the merger agreement and in favor of approval of the payments that would otherwise result in parachute payments. As of the close of business on the record date, no officer or director of CIENA owned shares of WaveSmith common or preferred stock.

Voting of Proxies at the Special Meeting and Revocation of Proxies

All shares of WaveSmith capital stock that are entitled to vote and are represented at the WaveSmith special meeting by properly executed proxies received prior to or at such meeting, and not revoked, will be voted at such meeting in accordance with the instructions indicated on such proxies. If no instruction is indicated, such proxies will be voted **FOR** approval and adoption of the merger and the agreement and plan of merger, **FOR** approval of the payments that would otherwise result in parachute payments and in favor of the other proposals.

The WaveSmith board of directors does not know of any matters other than those described in the notice of the WaveSmith special meeting that are to come before such meeting. If any other matters are properly presented at the WaveSmith special meeting for consideration, the persons named in the enclosed proxy card and acting thereunder generally will have discretion to vote on such matters in accordance with their best judgment.

Any proxy given pursuant to the solicitation may be revoked by the person giving it at any time before it is voted. Proxies may be revoked by

filing with Gregg Savage, the Secretary of WaveSmith, at or before the taking of a vote at the WaveSmith special meeting, a written notice of revocation bearing a later date than the proxy,

duly executing a later dated proxy relating to the same shares and delivering it to Mr. Savage before the taking of the vote at the WaveSmith special meeting, or

attending the WaveSmith special meeting and voting in person (although attendance at the WaveSmith special meeting will not in and of itself constitute a revocation of a proxy).

Any written notice of revocation or subsequent proxy should be sent to WaveSmith, Inc., 35 Nagog Park, Acton, MA 01720, Attn: Gregg Savage, Secretary, or hand-delivered to Mr. Savage at or before the taking of the vote at the WaveSmith special meeting.

WaveSmith will be soliciting proxies on its own behalf. WaveSmith intends to solicit proxies through this proxy statement/prospectus and directly through its directors, officers and regular employees. Solicitation of some stockholders may be made in person or by mail, telephone, facsimile transmission or other means of electronic transmission.

WaveSmith 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 WaveSmith. 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.

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Quorum and Abstentions

A majority of all shares of WaveSmith common stock and preferred stock outstanding as of the record date and one-third of each class or classes of preferred stock entitled to a special vote 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 WaveSmith special meeting. WaveSmith has appointed Gregg Savage, its 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 WaveSmith stockholders at the special meeting. If a quorum is not present, or fewer shares of WaveSmith common and preferred stock are voted for the adoption and approval of the merger agreement than the required amount to approve the merger vote at the special meeting in person or by proxy, if stockholders approve the grant of discretionary authority to the WaveSmith board of directors to adjourn the meeting, the special meeting may be postponed or adjourned for the purpose of allowing additional time for obtaining additional proxies or votes, and, if stockholders approve the grant of discretionary authority to the WaveSmith 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 reconvening of the special meeting.

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

Board of Directors Recommendation

The WaveSmith 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 WaveSmith and its stockholders. Accordingly, the WaveSmith 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 **FOR** approval of the grant of discretionary authority to adjourn the meeting to solicit additional votes if necessary. In considering such recommendations, WaveSmith stockholders should be aware that some WaveSmith directors and officers have interests in the merger that are different from, or in addition to, those of WaveSmith stockholders, and that WaveSmith and CIENA have provided indemnification arrangements to directors and officers of WaveSmith. See *The Merger and Related Transactions Interests of Directors and Officers of WaveSmith in the Merger*.

The WaveSmith board of directors is also submitting to stockholders a proposal to approve certain payments that would otherwise result in parachute payments.

The matters to be considered at the special meeting are of great importance to the stockholders of WaveSmith. Accordingly, WaveSmith 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.

WaveSmith's stockholders should not send any stock certificates with their proxy cards. A transmittal form with instructions for the surrender of WaveSmith common stock certificates will be mailed to WaveSmith stockholders promptly following completion of the merger. For more information regarding the procedures for exchanging WaveSmith stock certificates for CIENA stock certificates, see *The Merger and Related Transactions The Merger Agreement Exchange of WaveSmith Stock Certificates for CIENA Stock Certificates*.

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THE MERGER

General

The boards of directors of CIENA and WaveSmith have each approved the merger agreement, which provides for the merger of WaveSmith with and into CIENA, with CIENA being the surviving corporation of the merger. Each share of WaveSmith common stock and WaveSmith series A preferred stock, series A-1 preferred stock, series B preferred stock, series B-1 preferred stock and series C preferred stock outstanding immediately prior to the merger will be converted into the right to receive shares of CIENA common stock. The shares of WaveSmith common stock and WaveSmith preferred stock will be converted into a number of shares of CIENA common stock in accordance with the formulas specified in the merger agreement, as described under Terms of the Merger Agreement and Related Transactions Conversion of WaveSmith Preferred Stock and Common Stock; Treatment of Options and Warrants. Fractional shares of CIENA common stock will not be issued in connection with the merger, and WaveSmith 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 WaveSmith 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 distribution agreements, acquisitions, investments, licenses, development agreements and joint ventures.

Beginning in January 2002, WaveSmith's management, upon instructions from its board of directors, began to seek additional sources of funding for WaveSmith. Members of WaveSmith's management had meetings with numerous strategic and financial investors regarding a potential investment in and/or strategic transaction with WaveSmith.

As a result of these discussions, Company A, a large Nasdaq-listed telecommunications equipment manufacturer, expressed interest in a potential strategic transaction with WaveSmith. During June 2002, representatives of Company A visited WaveSmith's offices several times to conduct a due diligence investigation of WaveSmith and to meet with WaveSmith's management.

On June 5, 2002, at the Supercomm 2002 trade show in Atlanta, Georgia, Emil Savov, CIENA's Senior Director Corporate Development, met with Mike Deskewies, Vice President Business Development for Équipe Communications Corporation, a manufacturer of core multiservice switches. CIENA had previously announced both a strategic investment in Équipe and a worldwide reseller agreement between CIENA and Équipe. Mr. Deskewies suggested to Mr. Savov that it would be useful for CIENA to meet with WaveSmith in order to explore possible synergies and complementary product offerings.

On June 6, 2002, Mr. Savov and Jeff Wabik, CIENA's Vice President Systems Architecture, met with Brian Fitzgerald, then WaveSmith's Executive Vice President for Worldwide Sales, and Chad Dunn, then WaveSmith's Director of Product Management. On the same day, Stephen Alexander, CIENA's Senior Vice President and Chief Technology Officer, and Stephen Kaye, CIENA's Vice President Corporate Development, met with Messrs. Fitzgerald and Dunn. The topics of discussion at both meetings included WaveSmith's products and technology, value proposition, capital requirements and financing activities, as well as the potential for cooperation between the two companies and a possible strategic investment in WaveSmith by CIENA.

On June 11, 2002, CIENA and WaveSmith entered into a nondisclosure agreement.

On June 12, 2002, after discussions with several investment banking firms, WaveSmith engaged the investment banking firm Thomas Weisel Partners LLC (TWP) to act as its financial advisor to assist with negotiations with Company A and to identify additional potential sources of capital and/or strategic partners for WaveSmith.

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Also on June 12, 2002, Robert Dalias, then WaveSmith's President and Chief Executive Officer, had conversations with Mr. Savov regarding a potential strategic relationship between WaveSmith and CIENA. Mr. Savov indicated that CIENA may be interested in such a relationship. The discussion was focused on an investment in WaveSmith by CIENA and a commercial agreement between the parties giving CIENA rights to distribute WaveSmith products.

In late June 2002, Company A informed WaveSmith that it had decided to end discussions regarding a potential strategic transaction between the companies.

During the period between June 2002 and September 2002, TWP contacted approximately seven potential strategic partners on behalf of WaveSmith including several publicly traded telecommunications equipment manufacturers. In addition, members of WaveSmith's management contacted approximately 20 potential financial investors and/or strategic partners.

On June 20, 2002, Mr. Wabik visited WaveSmith's offices in Acton, Massachusetts, to conduct technical due diligence on WaveSmith's products and technology, and met with Mr. Dunn and Jim Donovan, WaveSmith's Director of Systems Engineering.

On June 26, 2002, a meeting took place in Columbia, Maryland between representatives of CIENA and WaveSmith. CIENA's team consisted of Gary Smith, CIENA's President and Chief Executive Officer, Steve Chaddick, CIENA's Senior Vice President and Chief Strategy Officer, Joseph R. Chinnici, CIENA's Senior Vice President Finance and Chief Financial Officer, and Mr. Kaye. WaveSmith was represented by Mr. Dalias, John O'Hara, then WaveSmith's Vice President of Engineering and Mr. Fitzgerald. The parties discussed their respective products technology, business strategies and the potential for cooperation between the two companies.

On June 28, 2002, Messrs. Kaye and Savov met with Messrs. Dalias, O'Hara, Fitzgerald and Donovan at WaveSmith's offices, to conduct business due diligence on WaveSmith and to explore further the possibility of a CIENA investment in WaveSmith.

Over the next few weeks, Mr. Kaye performed additional due diligence by contacting several customer references provided by WaveSmith, and the parties continued to discuss the specifics of a potential business arrangement.

On July 11, 2002, CIENA sent WaveSmith a draft of a non-binding letter of intent with respect to a proposed equity investment in WaveSmith's next round of funding and certain special rights for CIENA surrounding such investment. The letter of intent also provided general terms for a worldwide reseller agreement, which would give CIENA the right to market, sell and support WaveSmith's products into larger carrier accounts. Over the next several weeks, CIENA and WaveSmith negotiated the terms of the letter of intent.

On July 30 and 31, 2002, Mr. Wabik performed additional technical due diligence on WaveSmith's products and technology at WaveSmith's offices.

On July 30, 2002, WaveSmith received a letter of intent from Company B, an outside financial investor, to lead WaveSmith's next round of financing.

On July 31, 2002, at a meeting of WaveSmith's board of directors, the directors discussed and evaluated the proposed strategic relationship with CIENA. The board of directors approved the CIENA letter of intent as negotiated and instructed management to execute the CIENA letter of intent. The board members also discussed the letter of intent from Company B and instructed management to pursue negotiations with Company B.

From July 30, 2002 through August 14, 2002, members of WaveSmith's management, upon instructions from the board of directors, attempted to negotiate the terms of the letter of intent with Company B, particularly Company B's valuation of WaveSmith, which WaveSmith's management and board of directors viewed as unacceptable.

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On July 31, 2002, CIENA and WaveSmith entered into the letter of intent regarding the proposed financing and the strategic relationship.

Also on July 31, 2002, Mr. Dalias visited with members of management from Company C, a Nasdaq-listed telecommunications equipment manufacturer, regarding a potential acquisition of WaveSmith. Mr. Dalias reported Company C's interest to each of the members of WaveSmith's board of directors. The members of the board of directors concluded that Company C's valuation of WaveSmith was not acceptable.

On August 12, 2002, Mr. Dalias informed Company C that WaveSmith's board of directors did not support a potential acquisition of WaveSmith on the terms discussed. No further discussions between WaveSmith and Company C occurred until March 2003.

On August 14, 2002, Company B informed WaveSmith's management that it was not willing to proceed with an investment in WaveSmith at any valuation greater than the initial valuation it had proposed. No further discussions between WaveSmith and Company B occurred thereafter.

Throughout August and September, 2002, CIENA and WaveSmith directly, and indirectly through their respective counsel, Hogan & Hartson L.L.P. for CIENA and Testa, Hurwitz & Thibault, LLP for WaveSmith, had numerous conversations and exchanged drafts of the financing agreements and related agreements and the reseller agreement. The parties ultimately agreed that, in connection with CIENA's equity investment in WaveSmith's third round of funding, CIENA would be entitled to the following: (i) observer status on the WaveSmith board of directors; (ii) notification rights in the event that a third party made an offer to acquire WaveSmith; (iii) the right to a fee of 5% of the total consideration paid to WaveSmith in the event that WaveSmith agreed to be acquired by a third party prior to July 1, 2003; and (iv) the right to acquire WaveSmith during the period beginning on July 1, 2003 and ending on March 31, 2004 for \$150,000,000, to be paid upon closing of the acquisition, plus an earn out payment equal to two times the gross profit attributable to sales of WaveSmith's products for the 12 month period following the close of the acquisition. In connection therewith, the parties agreed that stockholders holding at least 80% of WaveSmith's total voting securities would immediately execute stockholder option agreements in favor of CIENA, pursuant to which they would agree to sell their shares to CIENA in the event that CIENA exercised its option after July 1, 2003 to acquire WaveSmith.

On September 10, 2002, the WaveSmith board of directors met to discuss the proposed terms of the financing and the strategic relationship with CIENA. The board of directors also discussed the efforts of management and TWP in connection with locating other potential sources of financing and/or strategic partners for WaveSmith. The board of directors authorized and instructed management to proceed with the financing and the strategic relationship with CIENA on the terms that were negotiated.

On September 18, 2002, WaveSmith and CIENA executed a series C preferred stock purchase agreement and related agreements and a worldwide reseller agreement. CIENA also executed documents with several of WaveSmith's principal stockholders giving CIENA an option to purchase their shares in the event that CIENA exercised its option after July 1, 2003 to acquire WaveSmith.

On October 21, 2002, WaveSmith issued a press release announcing the closing of the series C preferred stock financing.

On November 1, 2002, Thomas M. Burkardt, WaveSmith's recently appointed Chairman, President and Chief Executive Officer, visited CIENA's offices in Linthicum, Maryland, and met with Messrs. Smith, Kaye and Savov and Jim Collier, CIENA's Vice President North American Sales, to introduce himself and discuss the parties' business arrangement.

On January 28, 2003, Mr. Smith and Mr. Burkardt met at WaveSmith's offices to discuss the status of the parties' business relationship, the status of specific customer accounts, and WaveSmith's projected capital requirements. On the same date, Mr. Smith also met with Rob Soni, a former member of the WaveSmith board of directors and then a partner with Bessemer Venture Partners, one of WaveSmith's lead investors, to discuss the business arrangement between CIENA and WaveSmith. Also on January 28,

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2003, Mr. Smith had dinner with Robert O. Neil, WaveSmith's new Vice President of Worldwide Sales, Michael Regan, WaveSmith's Vice President of Engineering, and Mr. Donovan.

On February 17, 2003, Mr. Burkardt contacted Mr. Smith to discuss the status of the parties' existing business arrangement, WaveSmith's projected capital requirements and topics pertaining to joint customers. During the call, Mr. Burkardt inquired as to whether CIENA would be interested in pursuing a business combination with WaveSmith in advance of July 1, 2003.

On February 18, 2003, Mr. Smith informed Mr. Burkardt that CIENA would be interested in acquiring WaveSmith, provided that the parties could agree on a purchase price. Messrs. Smith and Burkardt agreed that the earn out portion of CIENA's option to acquire WaveSmith was problematic. They also discussed the purchase prices for the transaction. After discussions regarding the capital structure of WaveSmith and the morale of WaveSmith employees, the parties agreed that any transaction would have to contain structural elements intended to provide appropriate incentives for employees of WaveSmith. Mr. Smith then suggested some terms for discussion purposes with WaveSmith's board. Mr. Burkardt informed Mr. Smith that he would discuss the proposal with WaveSmith's board of directors before he could formally respond to Mr. Smith's suggested terms.

On February 20, 2003, Mr. Burkardt had conversations with each of the members of WaveSmith's board of directors regarding his discussions with Mr. Smith.

Over the next three days, Messrs. Smith and Burkardt had several discussions about the purchase price. On February 21, 2003, Messrs. Burkardt and Smith reached a tentative understanding on purchase price. Mr. Smith indicated, however, that the price was subject to completion of CIENA's due diligence. Also on February 21, 2003, WaveSmith's board of directors met to continue discussions regarding the terms of the potential acquisition of WaveSmith by CIENA including the consideration to be paid to WaveSmith stockholders and the structure of the proposed transaction. The board of directors also discussed the status of discussions with other potential acquirers of WaveSmith and the likelihood of receiving additional indications of interest. The board of directors directed Mr. Burkardt to proceed with negotiations with CIENA.

On February 22, 2003, CIENA's legal advisors from Hogan & Hartson commenced a legal due diligence review of WaveSmith, which continued through February 26, 2003.

On February 22, 23 and 25, 2003, WaveSmith's board of directors met with WaveSmith's legal advisors to discuss the status of the negotiations between the parties and the potential structures of the transaction. The board considered that if an agreement for the acquisition of WaveSmith by CIENA was executed but later terminated prior to consummation of the transaction, the business relationship between the parties would be severely damaged. Therefore, the board instructed management to negotiate a provision in the merger agreement providing that if the transaction was not consummated, the existing Reseller Agreement and related agreements with CIENA would terminate.

On February 24, 25 and 26, 2003, a CIENA due diligence team conducted a series of meetings with WaveSmith representatives at a hotel in Massachusetts near WaveSmith's offices and at the offices of Testa, Hurwitz & Thibault in Boston. CIENA representatives at one or more of those meetings included Messrs. Kaye and Chinnici, Russell B. Stevenson, Jr., CIENA's Senior Vice President and General Counsel, Andrew C. Petrik, CIENA's Vice President, Controller and Treasurer, and Lynn Moore, CIENA's Vice President Compensation. WaveSmith representatives at one or more of those meetings included Mr. Burkardt, Mr. O. Neil, Gregg Savage, Chief Financial Officer, Brian Silver, Director of Products & Technology, Steven Kalus, Controller and Kathleen Boyle, Manager Human Resources.

On February 25, 2003, Hogan & Hartson sent to WaveSmith and Testa, Hurwitz & Thibault a first draft of a definitive merger agreement, stockholder voting agreements and related agreements.

On February 26, 2003, Mr. Kaye contacted Mr. Burkardt in the late afternoon and informed him that CIENA had concluded from its due diligence on WaveSmith's revenue prospects that a downward adjustment in the proposed purchase price for WaveSmith might be required. Shortly thereafter, as a

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result of that discussion, Mr. Burkardt requested the cessation of all due diligence activities until he could speak further with Mr. Smith.

On February 28, 2003, at a meeting of WaveSmith's board of directors, Mr. Burkardt provided an update as to the status of discussions with CIENA. The board of directors instructed management to arrange a meeting with CIENA to attempt to resolve the remaining pending issues. The board also instructed management to contact TWP for the purpose of assisting in the identification of other potential partners and to assist in the negotiations with CIENA. In addition, the board instructed management to continue to investigate the interest of other potential strategic partners through their own contacts.

On March 1, 2003, Mr. Smith spoke with Mr. Burkardt and confirmed CIENA's desire to reduce the purchase price.

On March 4, 2003, representatives of TWP had a meeting with Messrs. Kaye, Chinnici and Petrik to discuss the open issues.

On March 6, 2003, at a meeting of WaveSmith's board of directors, Mr. Burkardt reported that CIENA and WaveSmith were still working to resolve open issues. In addition, Mr. Burkardt reported on efforts to locate other parties interested in a strategic transaction with WaveSmith. Mr. Burkardt reported that WaveSmith's financial advisors had contacted several publicly traded telecommunications equipment companies.

During the period from March 6, 2003 to March 28, 2003, WaveSmith management and CIENA management had various meetings to discuss creating more efficiencies under the reseller agreement between the parties.

On March 11, 2003, Messrs. Smith and Burkardt discussed the major substantive issues that had arisen as a result of CIENA's due diligence.

On March 12, 2003, at the regularly scheduled quarterly meeting of the CIENA board of directors, CIENA's senior management provided an update on the status of discussions with WaveSmith regarding a possible business combination, including the strategic and financial reasons for such a combination and the fact that no agreement had been reached as to the purchase price. After discussion, the CIENA board of directors expressed general support for the strategic value of an acquisition of WaveSmith, and authorized management to continue discussions with a view toward reaching agreement on acceptable terms.

On March 14, 2003, Messrs. Smith and Burkardt again spoke about the status of negotiations, and Mr. Burkardt suggested that TWP be provided a further opportunity to explain their analysis of WaveSmith to CIENA.

Starting in mid-March 2003, three other potential transaction partners contacted WaveSmith. Between March 31, 2003 and April 5, 2003, Mr. Burkardt had discussions with each of the three parties that had expressed interest in a strategic transaction with WaveSmith. Of the three, only Company C indicated a firm interest in pursuing an acquisition of WaveSmith. Company C proposed a cash acquisition of WaveSmith for a price lower than CIENA's proposal. During the same time, Messrs. Burkardt, Smith, Chinnici and Savage had various discussions regarding the open issues relating to the transaction between CIENA and WaveSmith.

On March 21 and 23, 2003, Messrs. Smith and Burkardt had further discussions of the purchase price for the transaction, as well as the potential for a reduction in the liquidation preferences for WaveSmith's preferred stockholders to enable employees holding common stock to receive a greater portion of the acquisition price. On March 31, 2003, the parties reached a tentative agreement regarding the purchase price for the transaction and a reduction in the existing liquidation preferences for WaveSmith's preferred stockholders, contingent on successful conclusion of the negotiations of the merger agreement.

On March 31, 2003, at a meeting of WaveSmith's board of directors, Mr. Burkardt outlined the existing terms of CIENA's acquisition proposal. The board also discussed CIENA's desire to provide sufficient incentives to retain employees. Mr. Burkardt also reported that three other telecommunications

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equipment vendors had recently expressed interest in discussing a strategic transaction with WaveSmith, one of which was Company C. WaveSmith's board instructed management to continue negotiating definitive documentation with CIENA while also exploring the possibility of alternative transactions.

On April 1, 2003, WaveSmith caused Testa, Hurwitz & Thibault to send to CIENA comments on the draft of the merger agreement and related agreements on behalf of WaveSmith. Also on April 1, 2003, Mr. Burkardt received a telephone call from Mr. Smith to discuss the status of outstanding issues and the desire to complete the remaining due diligence and contract negotiations as soon as possible. Mr. Smith informed Mr. Burkardt that CIENA was comfortable with an acquisition price in CIENA common stock that valued WaveSmith at \$170 million and the parties agreed that the structure of the transaction should reflect appropriate incentives for WaveSmith employees.

Following this discussion, until the definitive merger agreement was signed on April 9, 2003, the parties and their respective legal advisors had numerous discussions regarding due diligence matters and conducted negotiations of the definitive terms of the transaction, including the terms of the merger agreement and the escrow agreement. Throughout these discussions, representatives of CIENA reiterated CIENA's condition that directors of the Company, and their affiliates, should execute voting agreements in substantially the form of the stockholder agreements.

On April 6, 2003, the CIENA board of directors held a meeting by teleconference, at which CIENA's senior management team presented the proposed terms of the merger. 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.

Also on April 6, 2003, at a meeting of WaveSmith's board of directors, Mr. Burkardt reported on WaveSmith's discussions with the three parties that had expressed interest in a strategic transaction with WaveSmith. Mr. Burkardt informed the board of the proposal made by Company C. The board of directors concluded that Company C's proposal was inferior and instructed Mr. Burkardt to reject the proposal by Company C unless the consideration could be increased. Mr. Burkardt then updated the board on the negotiations with CIENA including the discussions regarding providing adequate incentives to WaveSmith employees. The members of the board of directors agreed that revising the company's capital structure so that additional consideration from the transaction would be paid to WaveSmith's common stockholders was acceptable to the Company. WaveSmith's legal counsel explained that this would require a reduction in the liquidation preferences of WaveSmith's preferred stock. To avoid the uncertainty and delay associated with solicitation of votes to accomplish a charter amendment during the period between execution of the merger agreement and the closing of the transaction, the most efficient means to effect the desired changes in WaveSmith's charter was through a statutory merger with WS Contract Corp., a wholly owned subsidiary of WaveSmith, which could be approved by directors and stockholders prior to execution of a merger agreement with CIENA.

On April 7, 8 and 9, 2003, representatives of CIENA and WaveSmith finalized the merger agreement and related agreements.

On April 9, 2003, at a meeting of WaveSmith's board of directors, WaveSmith's board of directors reviewed the status of the negotiations with CIENA and the terms of the definitive merger agreement. After the review, the board determined that the terms of the merger and the merger agreement and the transactions contemplated thereby were fair to, and in the best interest of WaveSmith and its stockholders, and the directors unanimously recommended the approval of the merger, the adoption of the merger agreement and the transactions contemplated thereby and the merger of WaveSmith and WS Contract Corp. to the stockholders of WaveSmith.

The merger agreement and related documents, including the stockholder agreements, were executed on the afternoon of April 9, 2003.

On April 9, 2003, CIENA and WaveSmith issued a joint press release announcing the signing of the merger agreement.

Table of Contents**CIENA's Reasons for the Merger***Strategic Fit*

Optical networking products of the type currently offered by CIENA perform at the so-called Physical Layer, or Layer 1, of the Open System Interconnection Reference Model (OSI), the set of standards that allow for networking communications. CIENA's transport products essentially provide the means for sending and receiving data across physical devices. These products operate in both the core portion of a network and the metro portion of a network (which carries signals within metropolitan regions), which is closer to the edge of a network.

The recent general economic climate, and that of the telecommunications industry in particular, including consolidation and reduced spending by carriers, has resulted in dramatically reduced demand for the type of products currently manufactured by CIENA and its competitors. In response, over the past several months CIENA has embarked upon a corporate strategy designed to increase its addressable market and, thus, its opportunities to derive revenue. One element of this strategy is to move up into Layer 2 of the OSI model, the Data Link Layer where information is converted into packets and where errors, flow control and frame synchronization are handled. A second element is to move out from the core further toward the edge of a network, where the majority of carrier spending is expected to occur in the near future. CIENA has also determined to increase its sales efforts on the most financially stable service providers—those of the regional Bell operating companies (RBOCs), in the U.S. and the PTTs and other incumbent operators in Europe and Asia.

CIENA believes that a combination of its next-generation Layer 1 optical networking equipment, and WaveSmith's Layer 2 multiservice data switching, fits with CIENA's strategy. It will enable CIENA to broaden its product portfolio into Layer 2 and will strengthen its overall value proposition to current and potential incumbent carrier customers. WaveSmith's multiservice switches sit at the edge of a carrier's network. They are based on the widely-deployed ATM (Asynchronous Transfer Mode) and frame relay standards and also provide an easy migration path to next-generation technologies such as IP/MPLS (multiprotocol label switching). This migration strategy enables carriers to build on their existing infrastructure and provide revenue-generating services in an efficient and cost-effective way without having to replace legacy network products.

CIENA calls the network architecture created by its products LightWorks. This architecture is designed to dramatically simplify a carrier's network by reducing the number of network elements. As the WaveSmith DN product family is integrated into CIENA's LightWorks portfolio, CIENA will offer a unified, automated solution that converges Layer 1 and Layer 2, evolving networks so that carriers can address the enterprise data services market efficiently and profitably. CIENA's existing reseller relationship with WaveSmith has allowed it to begin these such integration efforts already.

In particular, CIENA believes that the following benefits will result from the merger:

Product Compatibility. In today's networks, CIENA's products perform transport and circuit switching functions which reside in Layer 1 of the OSI model. WaveSmith's products, on the other hand, perform packet switching and aggregation functions typically associated with Layer 2 of the OSI model. In this environment, CIENA's products generally create the infrastructure over which data services travel, while WaveSmith's products route the data traffic and adapt data services (such as ATM or frame relay) to be carried over the Layer 1 infrastructure.

These two layers are interconnected in most networks via standardized SONET (synchronous optical network) interfaces. Both CIENA and WaveSmith utilize these interfaces for interconnection, so the two companies' products can be easily interconnected to provide data services. Consequently, it is a simple matter to integrate CIENA's and WaveSmith's products to reduce the cost of building a network to provide data services.

Today, the Layer 1 and Layer 2 portions of the network are controlled independently. CIENA is a technology leader in automating the operation of the Layer 1 part of the network. Combining

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CIENA's portfolio with WaveSmith's products presents the opportunity to also consolidate the operation of these two layers of the network and automate the delivery of data services.

Customer Relationships. CIENA believes that WaveSmith has developed valuable relationships with RBOCs, as evidenced by its recent announcement of the selection of WaveSmith's DN product family by SBC. 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. Conversely, CIENA believes it will be able to leverage its existing sales channels and customer relationships to offer the WaveSmith products to a wider range of customers than WaveSmith currently reaches, including large incumbent operators in Europe and Asia, where WaveSmith currently has no presence.

Expand Addressable Market. CIENA believes that the proposed merger will expand its addressable market. CIENA currently has no product offering in the multi-service switch market. WaveSmith's DN is a leading platform in this market and will give CIENA entry into this multi-billion dollar market.

Broader Scope. CIENA believes that the current telecommunications environment makes vendors with a broad portfolio more attractive to large incumbent carriers than companies with point solutions. In an effort to simplify their networks and reduce operating expenses, large operators are reducing the number of equipment vendors, forming strong relationships with a few large, strategic vendors. CIENA believes that the acquisition of WaveSmith will strengthen its position with major operators by allowing it to offer a more complete portfolio of products covering a larger portion of network operators' equipment needs.

Additional Reasons for the Merger

The strategic fit with WaveSmith 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:

Competitive Advantage. The WaveSmith DN product family has been developed using the most current generation of hardware and software technology, resulting in a platform that offers superior price and performance characteristics as compared to the older generation products offered by more established vendors. The WaveSmith products have also completed the Telcordia OSMINE Services process for the TIRKS Operations Support System, which is a requirement of most RBOCs before deployment in their networks. Due to the high costs and long time frames associated with OSMINE testing, WaveSmith's completion of such testing gives CIENA a competitive advantage at the incumbent carrier accounts.

Cultural Fit. CIENA and WaveSmith share a common heritage as entrepreneurial companies as well as a common vision of distributed network intelligence. Both companies have established reputations for being flexible, innovative, agile and customer-focused.

Positive Business Model Effect. The addition of WaveSmith's data switches to CIENA's product portfolio should have a positive effect on CIENA's business model. Data switches such as those offered by WaveSmith typically carry higher margins than the optical networking equipment in CIENA's existing product portfolio.

Strong Engineering Teams. CIENA believes that WaveSmith has a strong engineering team that would add significantly to CIENA's engineering resources and enhance its ability to continue to innovate and rapidly bring new products to market.

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

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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.

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

At a special meeting held on April 9, 2003, the WaveSmith board of directors unanimously approved the terms and conditions of the agreement and plan of merger and the transactions contemplated thereby, including the merger. In evaluating the agreement and plan of merger and the transactions contemplated thereby, and deciding to approve them, the WaveSmith board of directors considered a number of factors, including the following:

the consideration being offered by CIENA for shares of WaveSmith's capital stock;

WaveSmith's prospects if it were to remain independent, including:

- * the resources necessary to insure WaveSmith's future growth;
- * WaveSmith's ability to raise the additional capital necessary for continuing operations and to expand its business, especially in light of the fact that WaveSmith's operating plan indicated a need for additional investment capital in the near term and the investment terms for private companies like WaveSmith have not been favorable;
- * CIENA's existing options to acquire a significant percentage of WaveSmith's capital stock at any time between July 1, 2003 and March 31, 2004, thus creating a challenge for WaveSmith to raise additional investment capital in that time period;
- * WaveSmith's ability to market efficiently, sell to and support its existing customers while remaining an independent, private company;
- * WaveSmith's ability to independently develop the necessary infrastructure to attract and support larger customers including regional Bell operating companies (RBOCs) critical to WaveSmith's long-term viability even with CIENA as a strategic partner;
- * the challenge faced by WaveSmith of dedicating significant resources to growth while at the same time focusing on achieving profitability; and
- * WaveSmith's ability to effectively compete with large telecommunication equipment companies operating in its market.

the possible alternatives to the CIENA transaction, including:

- * the possibility of continuing to operate WaveSmith as an independent entity and the resulting strain on WaveSmith's resources such an option would present;
- * the possibility of continuing to seek another strategic partner;
- * the range of possible benefits to WaveSmith's stockholders of these alternatives;
- * the timing and likelihood of accomplishing the goal of any of these alternatives; and
- * the contacts that had been made with potential acquirers and the fact that, although companies with a potential interest in acquiring WaveSmith had been contacted, only discussions with CIENA had advanced beyond preliminary stages.

the strategic value of WaveSmith in the hands of a company with significantly greater financial resources, such as CIENA, which by virtue of its existing customer relationships is well positioned to more optimally exploit WaveSmith's products and technology in the telecommunications carrier

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marketplace and which, as a large corporation, enjoys many other competitive advantages not presently available to WaveSmith;

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

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

the likelihood that CIENA's offer would be completed, in light of the experience, reputation and financial capabilities of CIENA and the terms of the agreement and plan of merger;

the WaveSmith board of directors' belief, based on its assessment of the negotiations, that a more favorable purchase price could not be achieved through continued negotiations with CIENA;

the fact that certain significant stockholders of WaveSmith were willing to support the transaction, thereby increasing the likelihood that the conditions to CIENA's offer would be satisfied;

the fact that the other conditions to CIENA's obligations to consummate the merger were customary and, in the assessment of the WaveSmith board of directors, not unduly onerous;

the terms of the agreement and plan of merger including the limited conditions to the parties' respective obligations under the agreement and plan of merger; and that the exchange ratios in the agreement and plan of merger did not limit the appreciation of the value of CIENA's common stock;

CIENA's right, pursuant to a letter agreement between WaveSmith and CIENA dated September 18, 2002, if at any time prior to July 2003 WaveSmith receives an acquisition offer from a third party, to receive notification of the offer prior to the execution of a definitive agreement and a fee of 5% of the total price paid by the third party if the transaction is consummated, thereby creating a disincentive for any third party to make an offer to acquire WaveSmith;

the expectation that the merger will qualify as a tax-free reorganization under federal tax law;

the opportunity created by the merger for WaveSmith stockholders to share in the combined company's long term growth;

information concerning WaveSmith's and CIENA's respective businesses, historical financial performance and condition, operations, technology, products, customers, competitive positions, prospects and management; and

due diligence discussions with CIENA by the WaveSmith board of directors and reports from WaveSmith management as to the results of its due diligence investigation of CIENA.

The WaveSmith board of directors also identified and considered a variety of potentially negative factors in its deliberations concerning the merger, including, but not limited to:

the risk that the potential benefits sought in the merger might not be fully realized;

the possibility that the merger might not be completed and the effect such a result would have on WaveSmith's operations;

that the exchange ratios in the agreement and plan of merger provided no protection against the depreciation of the value of CIENA's common stock;

the challenges relating to the integration of the two companies;

the possibility of management and employee disruption associated with the proposed merger and integrating the operations of the companies; and

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

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The WaveSmith board of directors believed that these risks were outweighed by the potential benefits of the merger. In view of the wide variety of factors, both positive and negative, considered by the WaveSmith board of directors, the WaveSmith board of directors did not find it practical to, and did not, quantify or otherwise assign relative weights to the specific factors considered and did not find that any factor was of special importance. Rather, the WaveSmith board of directors viewed its position and recommendations as being based on the totality of the information presented to and considered by it. In addition, different members of the WaveSmith board of directors may have assigned different weights to the various factors described above.

For the reasons discussed above, WaveSmith's board of directors has unanimously approved the merger agreement and the merger and has unanimously determined that the merger is fair to, and in the best interests of, WaveSmith and its stockholders and unanimously recommends that WaveSmith stockholders vote for adoption of the merger agreement and vote for approval of the merger.

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

Interests of Executive Officers and Directors in the Merger

In considering the recommendation of the WaveSmith board of directors regarding the merger, WaveSmith stockholders should be aware that some WaveSmith directors and executive officers have interests in the merger and related arrangements that are different from, or in addition to, their interests as WaveSmith 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 WaveSmith stockholders generally. The WaveSmith 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.

Stock Ownership. As of May 7, 2003, the directors and executive officers (and their affiliates) of WaveSmith beneficially owned 38,936,610 shares of common stock, no shares of series A preferred stock, 28,203,689 shares of series A-1 preferred stock, no shares of series B preferred stock, 66,666,661 shares of series B-1 preferred stock and 50,295,168 shares of series C preferred stock, all on as-converted to common stock basis, representing approximately 63.1% of the voting power of the fully-diluted outstanding WaveSmith capital stock. These shares would represent approximately 4.9% of the outstanding shares of CIENA after completion of the merger, based on shares outstanding on May 7, 2003.

Acceleration of Vesting of WaveSmith Restricted Stock. Assuming the merger is consummated, WaveSmith's right to repurchase an aggregate of 16,795,825 shares of WaveSmith common stock held by executive officers will terminate upon completion of the merger.

The table below sets forth the following: (i) the number of shares of common stock owned by the executive officers and directors, including executive officers during the last fiscal year, which are subject to rights of repurchase; (ii) the issue/repurchase price of such shares; (iii) the number of shares of common stock no longer subject to repurchase rights as of May 7, 2003 and (iv) the number of shares of common

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stock for which repurchase rights terminate in connection with the merger between WaveSmith and CIENA:

Officer/Director	Number of Shares of Common Stock Beneficially Owned Subject to Repurchase Rights as of 5/7/03	Issue/Repurchase Price	Number of Shares of Common Stock no Longer Subject to Repurchase Rights as of 5/7/03	Number of Shares of Common Stock for which Repurchase Rights Terminate in Connection With Merger
Thomas M. Burkardt	13,870,293	\$0.01	2,019,514	11,850,779
John Burnham	2,504,975	\$0.01	0	626,243
Robert Doucette	800,000	\$0.09	316,480	100,000
Robert Doucette	1,400,000	\$0.00	506,524	254,808
John O Hara (former executive officer)	2,727,699	\$0.00	2,200,761	526,938
Robert O Neil	5,825,523	\$0.01	0	1,456,380
Michael Regan	5,009,950	\$0.01	0	1,252,487
Gregg Savage	2,912,762	\$0.01	0	728,190

WS Contract Merger. As a result of the merger of WS Contract Corp. into WaveSmith immediately prior to the merger of WaveSmith into CIENA, the value of the WaveSmith common stock will be increased, resulting in the WaveSmith common stockholders, including some directors and executive officers, receiving a greater number of shares of CIENA common stock pursuant to the merger than such directors and executive officers would have received if the merger of WS Contract Corp. into WaveSmith had not occurred. The table below sets forth the number of shares of CIENA common stock which such executive officers would have received in the merger assuming that the merger of WS Contract Corp. into WaveSmith had not taken place, and the number of shares of CIENA common stock those executive officers will receive in the merger, assuming that there are 291,793,926 shares of WaveSmith capital stock outstanding on an as-converted basis on the effective date of the merger:

Officer	Shares of CIENA common stock to be received assuming WS Contract Corp. is not merged into WaveSmith	Shares of CIENA common stock to be received assuming WS Contract Corp. is merged into WaveSmith
Thomas M. Burkardt	848,863	1,197,658
John Burnham	152,332	214,925
Robert J. Dalias	378,457	533,963
Robert Doucette	132,726	187,263
John O Hara (former executive officer)	333,486	470,515
Robert O Neil	351,455	495,866
Michael Regan	302,251	426,445
Gregg Savage	182,967	258,147

Indemnification. The merger agreement provides that, upon the completion of the merger, for a period of six years CIENA will fulfill the obligations of WaveSmith to indemnify and hold harmless each person who is or was a director or officer of WaveSmith 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 WaveSmith's 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 WaveSmith's directors' and officers' insurance, on terms that are comparable to those currently applicable to WaveSmith 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 WaveSmith 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.

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Stockholder Agreements. The following WaveSmith directors and officers (and their respective affiliates) have entered into stockholder agreements pursuant to which they have agreed to vote shares of WaveSmith common and preferred stock over which they exercise voting control in favor of the adoption of the merger agreement and the merger:

Thomas M. Burkardt chief executive officer, president and chairman of the board of directors

Robert J. Dalias director

Michael Feinstein director

G. Felda Hardymon director

Robert C. Ketterson, Jr. director

The stockholder agreements also grant to CIENA an irrevocable option to purchase the shares of WaveSmith stock that are owned beneficially or of record by the stockholders who entered into the stockholder agreements. CIENA may exercise the options if the WaveSmith board withdraws its recommendation of the merger, WaveSmith breaches the terms of the merger agreement or terminates the merger agreement, or the stockholder fails to comply with the voting agreement. The option price is payable in cash at an exercise price based on the exchange formula set forth in the merger agreement, as if the merger became effective on April 9, 2003. See Terms of the Merger Agreement and Related Transactions Stockholder Agreements.

The total number of shares of WaveSmith capital stock (on an as-converted to common stock basis) covered by these agreements is 165,508,918 which represents approximately 57.7% of WaveSmith's outstanding common stock and preferred stock (on an as-converted to common stock basis) as of May 7, 2003.

Change in Control Payments. The acceleration of vesting, grant of restricted stock, payment of severance benefits and the increase in value of WaveSmith common stock resulting from the merger of WS Contract Corp. into WaveSmith, as well as other factors described below under Approval of Change in Control Payments for Federal Income Tax Purposes, could constitute potential parachute payments under the Internal Revenue Code of 1986. Individuals who receive the parachute payments would incur a 20% excise tax on the portion of the parachute payment that constituted an excess parachute payment and neither WaveSmith nor CIENA would be entitled to any income tax deduction it may otherwise be eligible for with respect to the excess parachute payments. In order to avoid these consequences, stockholders of WaveSmith are being asked to approve the payments, to the extent the payments would otherwise result in parachute payments, by separate vote at the meeting to which this proxy statement/prospectus relates. Holders of more than 75% of the voting power of all outstanding capital stock of WaveSmith, other than the affected persons, must approve these payments in order for the payments not to be treated as parachute payments. If the payments are not approved, the affected individuals have agreed to forego the portion of the payments that would cause them to receive a parachute payment.

Accounting Treatment

The merger is expected to be accounted for using the purchase method of accounting. CIENA will be deemed the acquiror for financial reporting purposes. Under the purchase method of accounting, the purchase price in the merger is allocated among the WaveSmith assets acquired and the WaveSmith 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.

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Governmental and Regulatory Approvals

The Hart-Scott-Rodino Act and its related rules and regulations prohibit WaveSmith and CIENA from completing the merger until CIENA and WaveSmith make a filing with the Antitrust Division of the Department of Justice and the Federal Trade Commission, and the Hart-Scott-Rodino Antitrust Improvements Act waiting period requirements have been satisfied. Even after the waiting period expires or terminates, the Antitrust Division or the Federal Trade Commission may later challenge the merger on antitrust grounds. CIENA and WaveSmith made the filings with the Department of Justice and the Federal Trade Commission on April 10, 2003, and the waiting period was terminated on May 2, 2003. 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

Generally

The following discussion describes the material U.S. federal income tax consequences of the exchange of shares of WaveSmith's capital stock for CIENA common stock pursuant to the merger that are generally applicable to holders of WaveSmith capital stock. This discussion is based on currently existing provisions of the Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed Treasury regulations thereunder and current administrative rulings and court decisions, all of which are subject to change. Any such change, which may or may not be retroactive, could alter the tax consequences to WaveSmith stockholders as described herein. Neither WaveSmith nor CIENA has requested nor will request a ruling from the Internal Revenue Service with regard to any of the tax consequences of the merger.

WaveSmith stockholders should be aware that this discussion does not deal with all U.S. federal income tax considerations that may be relevant to particular WaveSmith stockholders in light of their particular circumstances, such as stockholders who are dealers in securities, who are subject to the alternative minimum tax provisions of the Code, who are foreign persons, insurance companies, tax-exempt organizations, financial institutions, or broker-dealers, who hold their shares as part of a hedge, straddle, conversion or other risk-reduction transaction, who do not hold their WaveSmith stock as capital assets, who hold their WaveSmith stock through a partnership or other pass-through entity or who acquired their shares in connection with stock option or stock purchase plans or in other compensatory transactions. In particular, this discussion does not discuss the tax consequences of payments that may be subject to the "golden parachute" provisions of the Code, see *Approval of Certain Change in Control Payments for Federal Income Tax Purposes*. The section labeled *Federal Income Tax Consequences of the Merger of WS Contract Corp. into WaveSmith* discusses the tax consequences to holders of WaveSmith common stock of the changes to the liquidation preferences of the various classes of WaveSmith preferred stock as a result of the merger of WS Contract Corp. into WaveSmith immediately prior to the merger with CIENA. In addition, unless specifically addressed below, 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 WaveSmith capital stock are acquired or shares of CIENA common stock are disposed of, or the tax consequences of the assumption by CIENA of the WaveSmith employee options or the tax consequences of any receipt of rights to acquire CIENA common stock.

Accordingly, WaveSmith 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.

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In the opinion of Hogan & Hartson L.L.P., counsel to CIENA, and Testa, Hurwitz & Thibault, LLP, counsel to WaveSmith, the merger will be treated for U.S. federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Code. The opinions:

Will not be binding on the IRS or the courts nor preclude the IRS from adopting a contrary position;

Will be based on the assumption that the merger will be consummated in accordance with the terms of the merger agreement; and

Will be subject to the limitations discussed below.

Additionally, the opinions will be based on certain assumptions and limitations, as well as factual representations made by, among others, CIENA and WaveSmith. Such representations, if incorrect, could jeopardize the conclusions reached in the opinions. Neither CIENA nor WaveSmith 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.

Federal Income Tax Consequences if the Merger Qualifies as a Reorganization

Assuming the merger qualifies as a reorganization within the meaning of Section 368(a) of the Code and the merger is completed under the current terms of the merger agreement, subject to the discussion below under the headings Federal Income Tax Consequences of the Merger of WS Contract Corp. into WaveSmith and Taxation of Escrowed Shares, the following U.S. federal income tax consequences generally will result:

No gain or loss will be recognized by holders of WaveSmith capital stock solely upon their receipt of CIENA common stock, including CIENA common stock subject to the escrow, in exchange for such WaveSmith capital stock in the merger (except with respect to cash received in lieu of fractional shares as discussed below).

The aggregate tax basis of the CIENA common stock received by each WaveSmith stockholder in the merger (including any fractional share interest in CIENA common stock and CIENA common stock subject to the escrow) will be the same as the aggregate tax basis of the WaveSmith capital stock surrendered by such WaveSmith stockholder in exchange therefor.

The holding period of the CIENA common stock received by each WaveSmith stockholder in the merger (including the CIENA common stock subject to the escrow) will include the period for which the WaveSmith capital stock surrendered in exchange therefor was considered to be held, provided that the WaveSmith capital stock so surrendered is held as a capital asset at the time of the merger.

Any cash payment received by a holder of WaveSmith capital stock in lieu of a fractional share of CIENA common stock will be treated as if such fractional share had been issued in the merger and then redeemed by CIENA. A WaveSmith 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 or loss provided that the shares of WaveSmith capital stock were held as capital assets and will be long-term capital gain or loss if the WaveSmith capital stock exchanged for that fractional share of CIENA 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.

If a WaveSmith stockholder dissents to the merger and receives solely cash in exchange for such stockholder's WaveSmith capital stock, such cash generally will be treated as a distribution in redemption of such stockholder's WaveSmith capital stock. Where such stockholder owns no CIENA common stock either directly or by reason of certain attribution rules set forth in the Code,

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the stockholder should recognize gain or loss measured by the difference between the amount of cash received and the adjusted tax basis of the WaveSmith capital stock surrendered. Different tax consequences will apply to any interest awarded by a court to a dissenting WaveSmith stockholder.

Taxation of Escrowed Shares

WaveSmith stockholders will be treated as owning an allocable portion of the CIENA common stock issued in the merger and deposited in escrow. An allocable portion of any dividends received on escrowed stock will be taxed to each former WaveSmith stockholder as ordinary income when such amounts are received by the escrow agent. CIENA does not anticipate declaring dividends. The escrow agreement provides that a portion of the shares of CIENA common stock placed in the escrow may be sold to reimburse the expenses of the stockholders representative. The sale of such shares of CIENA common stock will be treated as a taxable sale to the WaveSmith stockholders. Each WaveSmith stockholder will recognize capital gain or loss as a result of such sale, measured as the difference between such WaveSmith stockholder's basis in such sold shares of CIENA common stock and the fair market value of such shares of CIENA common stock, as of the date of such sale. Likewise, WaveSmith stockholders will be allocated their portion of any interest or other income earned from the investment of the proceeds of such sale. No gain or loss will be recognized by a WaveSmith stockholder upon the distribution of escrowed stock to the stockholder upon termination of the escrow arrangement or upon the release of escrowed stock to CIENA pursuant to the terms of the escrow agreement.

Federal Income Tax Consequences of the Merger of WS Contract Corp. into WaveSmith

As discussed below in *Terms of the Merger Agreement and Related Transactions* Merger of WS Contract Corp. into WaveSmith, the liquidation preferences of the various classes of WaveSmith preferred stock will change as a result of the merger of WS Contract Corp. into WaveSmith. As a result of these changes, the value of the WaveSmith common stock will be increased, resulting in the WaveSmith common stockholders receiving a greater number of shares of CIENA common stock (the *Additional Shares*) pursuant to the merger than they would have received if the merger of WS Contract Corp. into WaveSmith had not occurred. Although the matter is not free from doubt, CIENA and WaveSmith believe that this additional value should not be treated as being received by the common stockholders pursuant to a reorganization within the meaning of Section 368(a) of the Code. Consequently, the discussion above under the heading *Federal Income Tax Consequences if the Merger Qualifies as a Reorganization* does not apply to the value represented by the Additional Shares.

CIENA will take the position that the value of the Additional Shares (including a portion of the escrow shares) is taxable to the WaveSmith common stockholders as ordinary income. As a result of this position, to the extent that any Additional Shares are not subject to a substantial risk of forfeiture within the meaning of Section 83 of the Code, in the hands of a WaveSmith common stockholder as of the effective time of the merger, such stockholder should recognize, as of the effective time, ordinary income in an amount equal to the fair market value of such Additional Shares. Such stockholder's basis in such Additional Shares should equal the fair market value of such shares as of the effective time of the merger, and the stockholder's holding period for such shares should begin the day after the merger.

If any Additional Shares are subject to a substantial risk of forfeiture, including a vesting requirement in the hands of a WaveSmith common stockholder, as of the effective time of the merger, such stockholder should not recognize ordinary income upon the effective time of the merger with respect to such Additional Shares. Instead, such stockholder should recognize ordinary income on the date when such Additional Shares vest (*i.e.*, cease to be subject to a substantial risk of forfeiture) in an amount equal to the fair market value of the vested shares at the time of vesting. The stockholder's basis in such vested shares should equal the fair market value of such shares as of the vesting date, and the stockholder's holding period for such shares should begin the day after the vesting date. A WaveSmith common stockholder may accelerate the date of his or her recognition of ordinary income and the beginning of the capital gains holding period with respect to any Additional Shares that are subject to a substantial risk of forfeiture by filing an election pursuant to Section 83(b) of the Code within 30 days of the merger of WS

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Contract Corp. into WaveSmith with respect to such Additional Shares. **Each WaveSmith common stockholder is urged to consult with his or her own tax advisors in order to determine (i) whether such stockholder should make a Section 83(b) election with respect to any Additional Shares that are subject to a substantial risk of forfeiture and (ii) whether such stockholder should make a protective Section 83(b) election with respect to other shares of CIENA common stock received pursuant to the merger in exchange for WaveSmith shares as to which the stockholder previously made a Section 83(b) election.**

Any ordinary income recognized as a result of the receipt of, or vesting in, the Additional Shares by a WaveSmith common stockholder who is a current or former employee of WaveSmith will be treated as compensation income and may be subject to income and employment tax withholding. Ordinary income recognized as a result of the receipt of, or vesting in, the Additional Shares by a WaveSmith common stockholder other than current or former employees will be reported on a Form 1099.

Federal Income Tax Consequences if the Merger Does Not Qualify as a Reorganization

Subject to the discussion above under the heading Federal Income Tax Consequences of the Merger of WS Contract Corp. into WaveSmith, a successful IRS challenge to the reorganization status of the merger would result in WaveSmith stockholders recognizing taxable gain or loss with respect to each share of WaveSmith capital stock surrendered equal to the difference between the stockholder's basis in such share and the fair market value, as of the effective time, of the CIENA common stock received in exchange therefor. In such event, a WaveSmith stockholder's aggregate basis in the CIENA common stock so received would equal its fair market value as of the effective time and the stockholder's holding period for such stock would begin the day after the merger. Such a challenge would not affect the taxable nature of the additional CIENA shares received by holders of WaveSmith common stock as a result of the merger of WS Contract Corp. into WaveSmith.

Tax Reporting

Each of CIENA and WaveSmith has agreed to report the merger as a reorganization within the meaning of Section 368(a) of the Code in all applicable tax returns filed by each party. Each WaveSmith stockholder will be required to file with such stockholder's U.S. federal income tax return a statement setting forth certain facts relating to the merger.

U.S. Federal Backup Withholding

A holder of WaveSmith capital stock may be subject, under some circumstances, to backup withholding at a rate of 30% with respect to certain payments made 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.

Appraisal Rights of Dissenting Stockholders of WaveSmith

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

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The statutory right of appraisal granted by Section 262 requires strict compliance with the procedures in Section 262. Failure to follow any of these procedures may result in a termination or waiver of dissenters' rights under Section 262. The following is a summary of the principal provisions of Section 262.

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

A holder of WaveSmith stock who elects to exercise appraisal rights under Section 262 must deliver a written demand for appraisal of its shares of WaveSmith prior to the vote on the merger. The written demand must identify the stockholder of record and state the stockholder's intention to demand appraisal of his or her shares. All demands should be delivered to WaveSmith, Attention: Gregg Savage, Chief Financial Officer and Secretary.

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

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

Beneficial owners who are not record owners and who intend to exercise appraisal rights should instruct the record owner to comply with the statutory requirements with respect to the exercise of appraisal rights before the date of the WaveSmith special meeting.

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

Within 120 days after the merger, the surviving corporation or any stockholder who has complied with the requirement of Section 262 may file a petition in the Delaware Court of Chancery demanding a determination of the fair value of the shares of WaveSmith stock held by all stockholders seeking appraisal. A dissenting stockholder must serve a copy of the petition on the surviving corporation. If no petition is filed by either the surviving corporation or any dissenting shareholder within the 120-day period, the rights of all dissenting stockholders to appraisal will cease. Stockholders seeking to exercise appraisal rights should not assume that the surviving corporation will file a petition with respect to the appraisal of the fair value of their shares or that the surviving corporation will initiate any negotiations with respect to the fair value of those shares. The surviving corporation is under no obligation to and has no present intention to take any action in this regard. Accordingly, stockholders who wish to seek appraisal of their shares should initiate all necessary action with respect to the perfection of their appraisal rights within the time periods and in the manner prescribed in Section 262. **Failure to file the petition on a timely basis will cause the stockholder's right to an appraisal to cease.**

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

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

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

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

A stockholder may withdraw a demand for appraisal and accept the CIENA common stock at any time within 60 days after the merger. If an appraisal proceeding is properly instituted, it may not be dismissed as to any stockholder without the approval of the Delaware Court of Chancery, and any such approval may be conditioned on the Court of Chancery's deeming the terms to be just. If, after the merger, a holder of WaveSmith stock who had demanded appraisal for his shares fails to perfect or loses his right to appraisal, those shares will be treated under the merger agreement as if they were converted into CIENA common stock at the time of the merger.

In view of the complexity of these provisions of the Delaware corporate law, any WaveSmith stockholder who is considering exercising appraisal rights should consult a legal advisor.

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

This section of the 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, WaveSmith will merge with and into CIENA. WaveSmith 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 WaveSmith's 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.

Treatment of Stock, Options and Warrants

At the effective time of the merger, each issued and outstanding share of WaveSmith capital stock, other than shares held in the treasury of WaveSmith, will be converted into shares of CIENA common stock in accordance with the formulas described below. WaveSmith stockholders will also receive cash, without interest, for any fractional shares of CIENA common stock they would otherwise receive in the merger. 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.

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

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

- * that share's liquidation preference, as established in Article FOURTH, Section (a)(1)(a) through (f) of the WaveSmith certificate of incorporation as in effect immediately prior to the effective time and giving effect to the changes effected by the merger of WS Contract Corp. into WaveSmith, treating the merger as a liquidation for purposes of that section, divided by
- * \$4.716, which is defined in the merger agreement as the Per Share Price,

thereafter, each share of common stock and preferred stock, treating the WaveSmith preferred stock as converted into common stock pursuant to the provision of WaveSmith's certificate of

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incorporation immediately prior to the effective time, giving effect to the adjustment to the terms of the liquidation preferences of the shares of WaveSmith's preferred stock to reduce such preferences for purposes of this calculation, shall receive a fraction of a share of CIENA common stock equal to:

- * 36,047,498 shares of CIENA common stock less that number of shares of CIENA common stock distributed to the holders of WaveSmith preferred stock as described above, divided by
- * the number of shares of WaveSmith common stock outstanding plus the number of shares of WaveSmith common stock issuable upon the exercise of all WaveSmith stock options or warrants to purchase WaveSmith common stock outstanding at the effective time (excluding those options which expire on or prior to the effective time or by their terms will expire following the effective time without becoming exercisable due to vesting provisions) plus the number of share of WaveSmith common stock that would be issuable upon conversion of all WaveSmith preferred stock outstanding at the effective time, or issuable upon the exercise of warrants to purchase WaveSmith preferred stock.

However, no preferred stockholder may receive an amount of CIENA common stock having a value, based on the Per Share Price, in excess of certain limits in WaveSmith's certificate of incorporation. It is not expected that these limits will be reached. In addition, 10% of the CIENA shares otherwise distributable at closing, plus certain additional shares, will not be delivered to the WaveSmith stockholders but will instead be deposited into an escrow fund to secure certain indemnity claims CIENA may make for up to one year. See Indemnification and Escrow Arrangement.

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

Each share of WaveSmith capital stock held in the treasury of WaveSmith, or by any direct or indirect wholly owned subsidiary of WaveSmith 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 WaveSmith common stock and preferred stock granted under WaveSmith's stock plan or otherwise issued by WaveSmith 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 WaveSmith common stock or preferred stock subject to the WaveSmith stock option or warrant, assuming full vesting, multiplied by the appropriate exchange ratio (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 WaveSmith common stock subject to the WaveSmith stock option or warrant divided by the appropriate exchange ratio. The duration and other terms of each such CIENA option or warrant, including the vesting schedule, will be the same as the prior WaveSmith stock option or warrant, unless the vesting is accelerated by the terms of the instrument as a result of the merger.

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 WaveSmith 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 WaveSmith common stock. The letter of transmittal will contain instructions with respect to the surrender of stock certificates to the exchange agent.

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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 WaveSmith capital 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 WaveSmith 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.

CIENA will not issue any fractional shares. Instead, each WaveSmith 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) \$4.716 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 WaveSmith capital stock must thereafter be surrendered for exchange to CIENA. Neither CIENA, WaveSmith, 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 WaveSmith capital 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 WaveSmith capital stock, see CIENA Capital Stock and Comparison of Stockholder Rights.

Effective Time

The merger will occur after specified conditions set forth in Article V of the merger agreement have been satisfied or waived. No later than 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 WaveSmith each anticipate that, if the merger is approved at the special meetings, it will be consummated during CIENA's third fiscal quarter of 2003. However, a delay in obtaining governmental consents required prior to consummation of the transactions contemplated in the merger agreement could delay the merger. There can be no assurances as to if or when such governmental consents will be obtained or that the merger will be consummated.

Representations and Warranties

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

the corporate organization and existence of WaveSmith, 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 WaveSmith;

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the capitalization of WaveSmith, 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 WaveSmith to execute and deliver the merger agreement and related documents and to consummate the transactions contemplated by these documents;

the compliance of the merger agreement and related documents with (1) WaveSmith's certificate of incorporation and bylaws and the certificate or articles of incorporation and bylaws of its subsidiary, (2) applicable laws, and (3) material agreements of WaveSmith, 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 WaveSmith;

WaveSmith's financial statements through February 28, 2003, including that the information in the financial statements is a fair presentation of the financial condition and results of operations of WaveSmith and is in compliance with GAAP, except for year-end adjustments or reclassifications;

the absence of material undisclosed liabilities;

the absence of certain changes in WaveSmith's business since February 28, 2003;

the absence of material legal proceedings, injunctions and disputes;

the validity of and absence of defaults under certain debt instruments, leases and other agreements WaveSmith;

compliance with laws relating to employees or the workplace, and the absence of material disputes with employees;

the filing and accuracy of WaveSmith's tax returns;

the absence of certain business practices of WaveSmith;

knowledge regarding customer and supplier relationships;

the ownership and condition of the assets owned by WaveSmith;

complete and correct books and records;

the absence of intellectual property infringement or contests;

the absence of brokers or finders other than Thomas Weisel Partners LLC;

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

employee benefit plans and related matters, including that the plans have been operated and administered in accordance with applicable laws;

insurance; and

related party transactions.

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

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

the corporate organization and existence of CIENA;

the certificate of incorporation and bylaws or other organizational documents of CIENA;

the corporate power and authority of CIENA;

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

the required governmental and third-party consents;

absence of undisclosed fees being paid to brokers;

CIENA's filings with the SEC;

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

the capitalization of CIENA;

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

the absence of specified changes in CIENA's business since January 31, 2003.

Business of WaveSmith Pending the Merger; Other Agreements

Pursuant to the merger agreement, WaveSmith has agreed to:

maintain its existence in good standing;

conduct its business in the ordinary and usual manner consistent with past practices;

maintain business and accounting records consistent with past practices; and

use commercially reasonable 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 WaveSmith:

Unless CIENA otherwise approves or if necessary in order to comply with law, WaveSmith and its subsidiaries may not:

amend or otherwise change its certificate of incorporation, other than the adoption of the new WaveSmith certificate of incorporation in connection with the merger of WS Contract Corp. into WaveSmith, or its bylaws;

other than pursuant to the adoption of the new WaveSmith certificate of incorporation in connection with the merger of WS Contract Corp. into WaveSmith, issue any stock or grant any options with certain exceptions in the ordinary course, including under its equity 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 the effects of the changes in the new WaveSmith certificate of incorporation and repurchases of shares in connection with the termination of any employee or consultant pursuant to stock option, restricted stock purchase agreements or stock award agreements;

other than pursuant to its existing Loan and Security Agreement with Comerica Bank, incur any indebtedness for borrowed money or issue any debt securities or assume, guarantee or endorse, or

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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 other than purchases of assets consistent with WaveSmith's spending plan and the merger of WS Contract Corp. into WaveSmith;

enter into any contract or agreement other than in the ordinary course of business, consistent with past practice and involving amounts not in excess of those set forth in WaveSmith's spending plan and other than in connection with the merger of WS Contract Corp. into WaveSmith;

authorize any capital commitment or capital lease which is in excess of \$500,000 or capital expenditures, except as set forth in WaveSmith's spending plan;

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 do so;

enter into or agree to enter into any employment agreement, other than offer letters or letter agreements for non-executive new hires entered into in the ordinary course of business;

except as set forth in WaveSmith's spending plan, 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 WaveSmith, 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 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 or initiate any litigation against a third party;

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 in amounts not in excess of \$100,000;

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

agree to do any of the foregoing.

Interim Operations of CIENA:

Unless WaveSmith 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, except where (1) an adjustment is made to the exchange ratio for WaveSmith capital stock or (2) the

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holders of WaveSmith capital stock will otherwise receive an equivalent, proportional dividend or distribution in connection with the merger as if they had been holders of CIENA common stock on the record date for such dividend or distribution.

No Solicitation by WaveSmith

Pursuant to the merger agreement, WaveSmith 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 WaveSmith or any of its affiliates to:

solicit, initiate, or encourage 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.

The merger agreement does not preclude WaveSmith 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 WaveSmith determines in good faith, after consultation with its financial advisor and outside legal counsel, that the acquisition proposal, if accepted, is reasonably likely to be consummated;

the board of directors of WaveSmith determines in good faith, after consultation with its financial advisor, that the acquisition proposal would, if consummated, result in a transaction that is more favorable to WaveSmith's stockholders; and

the board of directors of WaveSmith determines in good faith, after consultation with its outside legal counsel, that the failure to take such action would be inconsistent with its fiduciary duties to WaveSmith's stockholders under applicable law.

WaveSmith 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 WaveSmith 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 WaveSmith.

The merger agreement provides that the WaveSmith 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 two business days' prior notice, it has otherwise complied in all respects with its obligations under the merger agreement, and after consulting with its outside legal counsel, the WaveSmith board of directors determines in good faith that to not withdraw, amend or modify its recommendation would be inconsistent with its fiduciary duties to WaveSmith's stockholders under applicable law.

Additional Agreements of CIENA and WaveSmith

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

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Subject to the fiduciary duty exceptions described above, the WaveSmith 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.

The WaveSmith board of directors may withdraw, amend, modify or qualify in a manner adverse to CIENA its recommendation upon two business days notice, by following the procedures described above in the last paragraph of No Solicitation by WaveSmith.

Indemnification and Escrow Arrangement

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

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

the actions taken by WaveSmith in authorizing, approving and carrying out the merger of WS Contract Corp. into WaveSmith and the adoption of the restated WaveSmith certificate of incorporation, other than CIENA's loss of the deduction for compensation associated with the parachute payments under Section 280G of the Internal Revenue Code, loss of net operating losses for state tax purposes, withholding or employment taxes and the costs or expenses of withholding payroll or employment taxes; or

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

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

Escrow Fund. The merger agreement provides that 10% of the shares of CIENA common stock allocable to holders of WaveSmith capital stock to be issued to the WaveSmith stockholders in the merger and 10% of the shares of CIENA common stock allocable to vested options to purchase WaveSmith common stock will be placed in escrow with an escrow agent as soon as practicable after the merger is completed. Additionally, 53,011 shares of CIENA common stock which are allocable to WaveSmith stockholders in the merger will be deposited with the escrow agent to pay any expenses of Michael Feinstein, the stockholder representative. The escrow fund will be the sole and exclusive source available to compensate CIENA for the indemnification obligations of each WaveSmith stockholder under the merger agreement. The merger agreement does not, however, limit any remedies against the parties to the merger agreement in the event of fraud. The deposit with the escrow agent constitutes an escrow fund to be governed by the terms set forth in the escrow agreement. The portion of the escrow amount contributed on behalf of each stockholder must be proportional to the aggregate CIENA common stock to which such holder would otherwise be entitled. The form of escrow agreement is attached to this proxy statement/prospectus as Annex D.

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The vote being taken at the upcoming special meeting to approve and adopt the merger agreement includes approval of the provision of the merger agreement establishing Michael Feinstein as stockholders' representative under the escrow agreement.

Directors and Officers Insurance and Indemnification

CIENA has agreed to fulfill and honor in all respects the indemnification agreements WaveSmith has previously entered into with its officers and directors and to fulfill and honor any indemnification provisions of WaveSmith's charter documents. The merger agreement provides that all rights to indemnification for present and former officers and directors of WaveSmith will survive the merger and continue in full force and effect for a period of not less than six years from the date of the completion of the merger in the case of certain omissions.

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 have expired or been terminated;

CIENA and WaveSmith 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 WaveSmith;

No court or governmental entity enacts, issues, promulgates, enforces or enters, or institutes a proceeding to do so, any law, statute, ordinance, rule, regulation, judgment, decree, injunction or other order which is in effect and which restrains, enjoins 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;

The merger of WS Contract Corp. into WaveSmith shall have become effective and the new WaveSmith certificate of incorporation shall have been filed with the Secretary of State of the State of Delaware; and

Holders of WaveSmith capital stock must approve the merger.

Conditions Precedent to CIENA's Obligations

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:

WaveSmith must have performed and complied in all material respects with all agreements and conditions to be performed prior to or on the closing date;

WaveSmith 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 WaveSmith is a party; and

The escrow agreement shall have been executed and delivered.

Conditions Precedent to WaveSmith's Obligations

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

CIENA must have performed and complied in all material respects with all agreements and conditions to be performed prior to or on the closing date; and

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If required, CIENA shall have filed a timely notification of listing of additional shares with the Nasdaq National Market.

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 CIENA and WaveSmith;

by CIENA or WaveSmith if:

- * the closing date has not occurred by August 15, 2003 (the termination date) or the approval of WaveSmith's stockholders as required by the merger agreement has not been obtained at a meeting convened for that purpose, except 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; 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.

However, CIENA may, by notice to WaveSmith given on or prior to two business days prior to August 15, 2003, extend the termination date to October 15, 2003, if CIENA provides at least \$7.5 million in subordinated bridge financing to WaveSmith having customary terms, including an interest rate of prime plus 200 basis points, with interest cumulating and added to principal on maturity or conversion, and providing that such bridge financing will convert into equity on terms equivalent to the next bona fide private equity financing round of WaveSmith.

by WaveSmith if:

- * WaveSmith's board of directors authorizes WaveSmith, subject to complying with the merger agreement, to enter into a binding written agreement concerning a superior proposal and CIENA does not make, within two business days of receipt of notification of WaveSmith's intent, an offer that the WaveSmith 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; or
- * CIENA breaches any material representation, warranty, covenant or agreement in the merger agreement, and fails to cure the breach ten days after receiving written notice of it.

by CIENA if:

- * WaveSmith's 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 three business days of a written request of CIENA to do so;
- * WaveSmith has recommended or entered into an agreement with respect to, or consummated, any acquisition proposal from a person other than CIENA or any of its affiliates; or
- * WaveSmith breaches any material representation, warranty, covenant or agreement in the merger agreement, and fails to cure the breach ten days after receiving notice of it.

If the merger agreement is terminated by WaveSmith in order to enter into an agreement for a superior proposal, or by CIENA because WaveSmith's board of directors withdraws, amends or modifies its recommendation in favor of the merger, then WaveSmith must pay CIENA a termination fee of \$5.1 million, as well as reimbursement of up to \$500,000 for expenses incurred in the merger negotiation. In addition, WaveSmith will be obligated to pay CIENA a fee of 5% of the price of a superior proposal under the letter agreement it entered into with CIENA in September 2002 if WaveSmith is sold to a party other than CIENA prior to July 1, 2003, unless the 2002 letter agreement is terminated as described

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below. In addition, if the merger agreement is terminated by WaveSmith to enable it to enter into a superior transaction, CIENA may exercise its options under the stockholder agreements to acquire the shares of the stockholders who are parties to the stockholder agreements, for cash, at the original merger price. See Stockholder Agreements below.

In the event that:

CIENA terminates the merger agreement for any reason other than because the WaveSmith board of directors determined to enter into an alternative transaction that it views as superior to the merger;

WaveSmith terminates the merger agreement for any reason other than its board of directors determining to enter into an alternative transaction that it views as superior to the merger; or

the merger agreement is terminated by either party because the waiting period under the Hart-Scott-Rodino Antitrust Improvement Act of 1976 has not expired or been terminated, then, the reseller agreement between CIENA and WaveSmith, the letter agreement between CIENA, MultiWave Investment, Inc., a wholly-owned subsidiary of CIENA, and WaveSmith and the agreements CIENA has with several holders of WaveSmith capital stock will also terminate.

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.

Expenses

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

Stockholder Agreements

Voting

Certain directors and officers of WaveSmith, and their affiliates, owning common and preferred stock of WaveSmith have signed stockholder agreements with CIENA. In the aggregate, as of May 7, 2003, these individuals own 57.7% of the common and preferred stock, on an as-converted basis, 87.9% of the series A and A-1 preferred stock, on an as-converted basis, 81.0% of the series B and B-1 preferred stock, on an as-converted basis, and 54.1% of the series C stock, on an as-converted basis. The form of these stockholder agreements is attached as Annex C to this proxy statement/prospectus.

Pursuant to these stockholder agreements, these directors and officers of WaveSmith, and their affiliates, 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

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vote against any proposal that 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 WaveSmith.

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 WaveSmith shares to any person, subject to limited exceptions;

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

(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 or permit any affiliate, director, officer, employee, investment banker, attorney or other advisor or representative of the stockholder to do so.

Grant of Option

The stockholder agreements also grant to CIENA an irrevocable option to purchase the shares of WaveSmith stock that are owned beneficially or of record by the stockholders who entered into the stockholder agreements.

CIENA may exercise the options if:

WaveSmith terminates the merger agreement;

CIENA terminates the merger agreement because the WaveSmith board of directors withdraws, or modifies in a manner adverse to CIENA its recommendation of the merger agreement and the merger or recommends or enters into an acquisition proposal with someone other than CIENA;

CIENA terminates the merger agreement because WaveSmith is in material breach of the terms of the merger agreement and CIENA is not in material breach of the terms of the merger agreement; or

the stockholder breaches its obligations to vote in favor of the merger and otherwise as described in this section.

The option price is payable in cash at an exercise price based on the exchange formula set forth in the merger agreement, as if the merger became effective on the date of the merger agreement and assuming that WaveSmith had issued certain options reserved for grant to employees that may be hired prior to the effective time of the merger.

If CIENA decides to exercise the options it must purchase the total number of shares subject to the options received from all of the WaveSmith stockholders who have granted these options to CIENA.

The options will terminate upon the earliest of:

the date the merger agreement is terminated by Wave Smith because:

- * the WaveSmith stockholders do not approve the merger agreement, but only if the stockholder has not breached its voting agreement and other obligations described in this section;
- * the closing of the merger has not occurred by August 15, 2003 and CIENA does not extend financing to WaveSmith on the terms described above under Termination of the Merger Agreement; or

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* the merger has not closed by October 15, 2003 if the termination date has been extended by CIENA.

the date the merger agreement is terminated by CIENA other than because the WaveSmith board of directors has withdrawn or modified its recommendation in favor of the merger or recommended or entered into an acquisition proposal with someone other than CIENA;

the date the merger agreement has been terminated by WaveSmith or CIENA because termination of the HSR waiting period has not occurred; or

six months after termination of the merger agreement.

CIENA required that the stockholders deliver these agreements as a condition to CIENA's willingness to enter into the merger agreement.

In addition to these stockholder agreements, WaveSmith entered into a voting agreement with a stockholder who owns 16,666,667 shares of the series C preferred stock, which represents 17.9% of the series C preferred stock and 5.8% of the common stock on an as-converted basis. Under this voting agreement that stockholder has agreed to vote his shares in favor of the merger, against any alternative acquisition proposal and against any proposal that 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 WaveSmith. This voting agreement will terminate either upon the termination of the merger agreement or upon mutual agreement by the parties.

Although the shares subject to the stockholder agreements and the voting agreement are insufficient in themselves to ensure approval of the merger, if the merger agreement is not terminated (by WaveSmith to pursue a superior proposal, among other reasons) and the agreements themselves are not terminated as described above, then, depending on the number of shares of WaveSmith common stock outstanding at that time, these shares, when taken together with the shares of series C preferred stock owned by CIENA's subsidiary, MultiWave Investment, Inc., are sufficient to approve the merger at the stockholder meeting. If the options granted under the stockholder agreements are exercised under the circumstances described above, depending on the number of shares of WaveSmith common stock outstanding at that time, CIENA could profit from an alternative proposal that is completed at a price higher than the option price and may be able to prevent or delay the consummation of an alternative proposal. These agreements are not intended to and do not prevent the WaveSmith directors from pursuing a superior proposal.

Restrictions on Resales by Affiliates

The shares of CIENA stock to be issued to WaveSmith 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 WaveSmith 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 WaveSmith must be one permitted by the resale provisions of Rule 145 promulgated under the Securities Act. If a WaveSmith 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 not expected to apply to the executive officers and directors of WaveSmith.

Merger of WS Contract Corp. into WaveSmith

As part of the negotiations of the terms of the merger of WaveSmith into CIENA, WaveSmith and CIENA agreed that the CIENA stock to be issued as consideration in connection with the merger should be distributed in a manner that differed from the results obtained under the charter documents of WaveSmith. The distribution agreed upon by the parties resulted in a greater number of shares being allocated to the holders of WaveSmith common stock. Stockholders of WaveSmith have approved the merger of WS Contract Corp. into WaveSmith and the related adjustment of the charter documents of

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WaveSmith immediately prior to the merger of WaveSmith into CIENA. The adjustment to the WaveSmith charter documents reduces the preference amounts for each series of preferred stock of WaveSmith as follows:

Class of Stock	Original Preference Amount	New Preference Amount
Series A Preferred Stock	\$ 1.25	\$ 1.016030
Series A-1 Preferred Stock	1.25	0.673904
Series B Preferred Stock	0.90	0.783015
Series B-1 Preferred Stock	0.90	0.506835
Series C Preferred Stock	0.45	0.286181

Approving the merger and the related changes to the WaveSmith charter documents in advance of executing the agreement and plan of merger with CIENA allowed WaveSmith to avoid the uncertainty and delay associated with a solicitation regarding a merger and a charter amendment during the period between execution of the agreement and plan of merger with CIENA and the closing of the transaction. WaveSmith determined to effect the changes to its charter through a merger, rather than a charter amendment, so as to avoid as much as possible questions as to whether WaveSmith would have to seek a separate class vote on an amendment from each series of preferred stock, which could have delayed the execution of the merger agreement.

**APPROVAL OF CERTAIN CHANGE IN CONTROL PAYMENTS
FOR FEDERAL INCOME TAX PURPOSES**

In certain circumstances, payments of compensation made by a corporation in connection with a change in ownership or control are treated as excess parachute payments. Under Sections 280G and 4999 of the Internal Revenue Code of 1986, as amended, excess parachute payments are not deductible by the corporation and an excise tax (in addition to regular income and employment taxes) is imposed on the recipient.

As discussed in more detail below, certain former and current employees of WaveSmith have received, or may become eligible to receive, payments from WaveSmith and/or CIENA, and those payments could be treated as excess parachute payments. The adverse tax consequences associated with excess parachute payments made to those individuals can be eliminated if the WaveSmith shareholders receive disclosure of these payments and approve the individuals' rights to receive and retain the payments.

Tax Consequences

In general, under the Internal Revenue Code, if a disqualified individual receives payments (or receives the benefit of payments) in the nature of compensation which are contingent on a change in ownership or control and the aggregate present value of such payments equals or exceeds three times the individual's base amount, such payments will constitute so-called parachute payments. For purposes of the parachute payment rules, the proposed merger of WaveSmith into CIENA will constitute a change in ownership or control and each of the individuals named below will be considered a disqualified individual.

If a disqualified individual receives parachute payments, then, unless certain exceptions apply, the amount by which the aggregate present value of all parachute payments to such individual exceeds such individual's base amount will be subject to the following tax consequences:

1. The corporation will be denied a tax deduction for any such excess; and
2. The recipient of any such excess will be subject to a 20%, non-deductible, excise tax on such amount.

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For purposes of the parachute payment calculations, WaveSmith has determined that the approximate base amounts for the former and current employees of WaveSmith who may be deemed to receive parachute payments are as follows:

Disqualified Individual	Base Amount
Thomas Burkardt	\$ 249,489
John Burnham	\$ 185,826
Robert Dalias	\$ 186,121
Robert Doucette	\$ 188,448
Francis Fiorillo	\$ 126,926
Pamela Nelson	\$ 130,583
John O Hara	\$ 197,104
Robert O Neil	\$ 214,237
James Philippou	\$ 134,153
Michael Regan	\$ 171,368
Gregg Savage	\$ 159,861
Gary Styskal	\$ 134,891

Stockholder Approval Exception

A payment to a disqualified individual will not constitute a parachute payment if (1) it has been approved by a separate vote of the persons who, immediately before the change in ownership or control, own more than seventy-five percent (75%) of the voting power of all outstanding capital stock of the corporation undergoing the change in control, excluding capital stock owned by or for a disqualified individual who receives (or is to receive) payments that would be parachute payments if the stockholder approval requirements were not met, and certain related persons, and (2) the vote is based on adequate disclosure concerning payments made to the disqualified individual. The vote must determine the disqualified individual's right to receive or retain the payment. If such stockholder approval is not obtained with respect to any payment, such payment will not be made.

Disclosure of Payments***Receipt of Restricted Stock and Acceleration of Vesting of Restricted Stock***

Under the terms of each of the aforementioned disqualified individuals' stock restriction and stock award agreement, upon the occurrence of certain events relating to the recipient of restricted stock, WaveSmith has the right to repurchase or reacquire all or a portion of such individual's unvested restricted stock issued pursuant to such stock restriction or stock award agreement at a price equal to the original purchase price, if any. This repurchase right lapses and such restricted stock becomes vested over a period of time. The vesting schedule applicable to each of the aforementioned individuals generally provides that 25% of his or her restricted stock vests on the one year anniversary of the grant date (or date of hire, if earlier), with the remainder vesting in 36 equal monthly installments until the restricted stock is fully vested on the four year anniversary of the grant date. The following individuals have vesting schedules that vary from WaveSmith's standard vesting schedule:

Thomas Burkardt's shares of restricted stock vest in 48 equal monthly installments beginning on November 1, 2002;

Robert Doucette's December 12, 2002 restricted stock grant was 27.08% vested upon grant, with the balance vesting in 48 equal monthly installments until the stock is fully vested;

Francis Fiorillo's shares of restricted stock were 41.66% vested upon grant, with the balance vesting in 48 monthly installments until the restricted stock is fully vested;

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Pamela Nelson's December 12, 2002 restricted stock grant was 52.04% vested upon grant, with the remainder vesting in 48 monthly installments until the restricted stock is fully vested; and

Gary Styskal's December 12, 2002 restricted stock grant was 60.36% vested upon grant, with the balance vesting in 48 equal monthly installments until the restricted stock is fully vested.

Under the terms of each of the aforementioned disqualified individuals' stock restriction and stock award agreement, a portion of the shares of restricted stock that are unvested as of the proposed merger of WaveSmith into CIENA become vested as a result of the merger as follows:

Thomas Burkardt 100% acceleration of vesting of his unvested restricted stock upon a change in control of WaveSmith;

John Burnham, Robert O. Neil, Michael Regan and Gregg Savage 25% acceleration of vesting of their unvested restricted stock upon a change in control of WaveSmith;

Robert Doucette's October 1, 2001 stock grant, Pamela Nelson's November 21, 2000 and April 11, 2001 stock grants and Gary Styskal's June 5, 2002 stock grant 12.5% acceleration of vesting of their unvested restricted stock upon a change in control of WaveSmith;

Robert Doucette's December 12, 2002 stock grant acceleration of a number of shares of restricted stock equal to the number that would vest in a 12-month period under the terms of the agreement upon a change in control of WaveSmith; and

Francis Fiorillo's stock grant, Pamela Nelson's December 12, 2002 stock grant and Gary Styskal's December 12, 2002 stock grant a number of shares of restricted stock equal to the number that would vest in a six month period upon a change in control of WaveSmith.

Although the acceleration of vesting applicable to each of the aforementioned individuals' restricted stock as a result of the merger of WaveSmith into CIENA varies, each individual's stock restriction or stock award agreement(s) provides that all of such individual's unvested restricted stock will become vested if, at any time within 12 months following an acquisition of WaveSmith, such individual's employment is terminated either by WaveSmith or the acquiring or surviving entity without cause or voluntarily by such individual for good reason. The proposed merger of WaveSmith into CIENA will be an acquisition of WaveSmith for this purpose.

The following chart shows the number of shares of restricted stock held by each of the aforementioned individuals (adjusted for stock splits) as of May 7, 2003, the date such shares were issued and the purchase price, the number of shares that are unvested as of May 7, 2003, and the terms of the original vesting schedule applicable to each grant.

Disqualified Individual	Number of Shares of Restricted Stock	Issue Date	Purchase Price per Share	Number of Shares Unvested as of May 7, 2003	Original Vesting Schedule
Thomas Burkardt	13,870,293	2/5/03	\$0.01	11,850,779	Beginning on 11/1/02, 288,502 shares vest each month until 10/14/06
John Burnham	2,504,975	2/5/03	\$0.01	2,504,975	626,243 shares vest on 1/6/04, 52,103 shares vest each month thereafter until 1/6/07
Robert Dalias	2,473,107	12/2/02	\$0.01	0	All shares were fully vested upon grant

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Disqualified Individual	Number of Shares of Restricted Stock	Issue Date	Purchase Price per Share	Number of Shares Unvested as of May 7, 2003	Original Vesting Schedule
Robert Doucette	800,000	11/30/01	\$ 0.09	483,520	200,000 shares vested on 10/1/02, 16,640 shares vest each month thereafter until 10/1/05
	1,400,000	12/12/02	\$ 0.01	893,476	379,120 shares vested on 11/1/02, 21,234 shares vest each month thereafter until 11/1/06
Francis Fiorillo	420,000	12/12/02	\$ 0.01	214,446	174,972 shares vested on 11/1/02, 5,097 shares vest each month thereafter until 11/1/06
Pamela Nelson	300,000	11/21/00	\$0.065	106,440	75,000 shares vested on 10/16/01, 6,240 shares vest each month thereafter until 10/16/04
	10,000	4/11/01	\$ 0.07	4,588	2,500 shares vested on 3/13/02, 208 shares vest each month thereafter until 3/13/05
	600,000	12/12/02	\$ 0.01	251,850	312,240 shares vested on 11/1/02, 5,985 shares vest each month thereafter until 11/1/06
John O Hara	2,727,699	12/2/02	\$ 0.01	526,938(1)	526,938 shares vest only upon the merger
Robert O Neil	5,825,523	2/5/03	\$ 0.01	5,825,523	1,456,380 shares vest on 11/18/03, 121,170 shares vest each month thereafter until 11/18/06
James Philippou	1,500,000	12/12/02	\$ 0.01	248,964(2)	248,964 shares vest only upon the merger
Michael Regan	5,009,950	12/16/02	\$ 0.01	5,009,950	1,252,487 shares vest on 12/16/03, 104,206 shares vest each month thereafter until 12/16/06
Gregg Savage	120,000	12/31/02	\$ 0.01	0	N/ A (fully vested as of date of merger)
	2,912,762	2/5/03	\$ 0.01	2,912,762	728,190 shares vest on 1/6/04, 60,585 shares vest each month thereafter until 1/6/07
Gary Styskal	1,000,000	6/5/00	\$0.005	271,600	250,000 shares vested on 6/5/01, 20,800 shares vest each month thereafter until 6/5/04
	1,500,000	12/12/02	\$ 0.01	520,392	905,400 shares vested on 11/1/02, 12,368 shares vest each month thereafter until 11/1/06

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- (1) Pursuant to the terms of John O Hara s December 2, 2002 separation agreement, the receipt of 526,938 of the 2,727,699 shares granted to him on such date was made wholly contingent on a change in control of WaveSmith

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occurring within the nine month period following Mr. O Hara's separation from WaveSmith. As a result, the entire value of such shares is treated as a payment contingent on a change in control of WaveSmith.

- (2) Pursuant to the terms of James Philippou's February 14, 2003 separation agreement, Mr. Philippou is entitled to retain these shares only in the event an acquisition of WaveSmith occurs prior to August 14, 2003; otherwise, they are forfeited pursuant to the terms of his December 12, 2002 stock award agreement.

Issuance of Stock Not Contingent on Change in Control. If the issuance of stock was not contingent upon the change in control (i.e., the stock would have been issued without regard to the change in control) and such restricted stock otherwise would have vested only as the result of continued employment by the service provider, the amount that is treated as contingent on the change in control of the corporation as a result of the acceleration of vesting upon such change in control is the sum of (i) the present value of the acceleration of vesting and (ii) to reflect the lapse of the individual's obligation to perform additional services, an amount equal to one percent (1%) of the value of the payment for each full calendar month for which the individual no longer has to perform services for the shares to vest.

The present value of the acceleration of vesting of each unvested share of restricted stock as of the date of the merger of WaveSmith into CIENA is equal to the excess of (A) the fair market value of such share on such date over (B) the present value of the fair market value of such share, had the share vested in accordance with its terms (assuming the fair market value of such share on such later date is the same as its fair market value on the date of the merger of WaveSmith into CIENA). Present value generally is calculated based on 120% of the applicable federal rate in effect as of the date of the proposed merger of WaveSmith into CIENA (120% of the short-term applicable federal rate for May, 2003 is 1.82% and 120% of the mid-term applicable federal rate for May, 2003 is 3.78%).

The calculation of the value of accelerated vesting for purposes of the definition of "parachute payment" is somewhat complex. The following, while hypothetical and purely for illustrative purposes, is an example of the calculation used to determine the value of acceleration of vesting of restricted stock. Note that the following example does not reflect the fact that a portion of the value of the WaveSmith common stock is attributable to the change in liquidation preferences of the various classes of WaveSmith preferred stock, which changes are separately discussed below under the heading "Shifted Consideration."

Assume that on January 1, 2003, WaveSmith grants to a disqualified individual 1,000,000 shares of restricted stock. The terms of the grant provide that the shares vest on January 1, 2006, or upon a change in control of the company prior to such date, whichever date is earlier. On June 15, 2003, a change in control of the company occurs. On that day, the fair market of each share of WaveSmith common stock is \$.33 and the aggregate value of the shares granted to the individual is therefore \$330,000. Assume that 120% of the applicable federal rate for short-term obligations for June 2003 is 2.50%.

The portion of the payment that is contingent on the change in control is the amount by which the present value of the accelerated payment on June 15, 2003 (\$330,000) exceeds the present value of the payment that was expected to be made on January 1, 2006, plus an amount reflecting the lapse of the obligation to continue to perform services. The value of the stock on January 1, 2006 is deemed to be \$330,000, the amount of the accelerated payment. The present value on June 15, 2003 of a \$340,000 payment to be made on January 1, 2006 is \$309,898.52. Thus, the portion of the payment treated as contingent on a change in control of the company is \$119,101.48, the sum of (i) \$20,101.48 (\$330,000 - \$309,898.52) and (ii) \$99,000 (1% multiplied by 30 months multiplied by \$330,000), the amount reflecting the lapse of the obligation to continue to perform services.

Issuance of Stock Contingent on Change in Control. If the issuance of stock was contingent on the change in control of a corporation, the entire fair market value of such stock on the date of the change in control of the corporation generally will be treated as a payment contingent on a change in control of the corporation. For this purpose, the issuance of stock within one year prior to the change in control is presumed to have been contingent on the change in control absent clear and convincing evidence to the contrary. If this presumption cannot be rebutted with respect to an issuance of WaveSmith common stock within one year prior to the change in control, then the entire value of the shares of WaveSmith common stock issued to the disqualified individuals (less the amount paid for such shares) listed above within the

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12 months prior to the proposed merger of WaveSmith into CIENA generally would be treated as a payment contingent on a change in control of WaveSmith.

As of May 7, 2003, the value of WaveSmith common stock was approximately \$.33 per share. This value is based on the closing price of CIENA common stock as of May 7, 2003. Note that this value does not reflect that a portion of the value of the WaveSmith common stock is attributable to the change in liquidation preferences of the various classes of WaveSmith preferred stock, which changes are separately discussed below under the heading Shifted Consideration. The value of WaveSmith common stock as of the date of the proposed merger may be higher or lower depending of the closing price of CIENA common stock on that date.

Separation Agreements

In addition to the agreements under which they received shares set forth in the previous chart, as set forth in the chart below, Robert Dalias, John O Hara and James Philippou received acceleration of a portion of their unvested restricted stock in connection with separation agreements they entered into with WaveSmith upon termination of their employment with WaveSmith. These agreements were entered into within one year of the date of the proposed merger of WaveSmith into CIENA. Payments made to a disqualified individual within one year of a change in control are presumed to be contingent on the change in control absent clear and convincing evidence to the contrary. If this presumption cannot be rebutted, then the value of this acceleration of otherwise unvested restricted stock, would be treated as contingent on the change in control of WaveSmith.

Disqualified Individual	Number of Shares of Restricted Stock	Purchase Date	Separation Date	Purchase Price per Share	Number of Shares Unvested as of Separation Date	Original Vesting Schedule
Robert Dalias	3,800,000	3/31/00	12/2/02	\$0.005	1,266,685	475,000 shares vested on 9/30/00, 79,166 shares vest each month thereafter until 3/31/04
John O Hara	2,800,000	6/16/00	12/2/02	\$0.005	935,760	350,000 shares vested on 10/24/00, 58,240 shares vest each month thereafter until 4/24/04
James Philippou	1,400,000	6/16/00	2/14/03	\$0.005	467,880	175,000 shares vested on 12/5/00, 29,120 shares vest each month thereafter until 6/5/04
	1,500,000	12/12/02		\$ 0.01	557,778(1)	905,100 shares vested on 11/1/02, 12,374 shares vest each month thereafter until 11/1/06

- (1) Pursuant to the terms of his February 14, 2003 separation agreement, James Philippou received the following acceleration of vesting of his unvested restricted stock: (i) acceleration of vesting on his 467,880 remaining unvested shares from the June 16, 2000 grant; (ii) acceleration of vesting with respect to 37,122 unvested shares from his December 12, 2002 grant and (iii) the ability to retain 248,964 shares from the December 12, 2002 grant only upon an acquisition of WaveSmith occurring before August 14, 2003.

Acceleration of Vesting of Options

Under the terms of each of the disqualified individual's option agreement, such individual's options become exercisable, or vest, over a period of time. The vesting schedules applicable to options held by each of Francis Fiorillo and Pamela Nelson provide that 25% of their options vest on the one year anniversary of the vesting start date, in Mr. Fiorillo's case, March 19, 2001 and in Ms. Nelson's case,

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January 1, 2001, with the remainder vesting in 36 equal monthly installments until the options are fully vested on the four year anniversary of the grant date.

The chart below shows the number of shares of WaveSmith common stock issuable upon the exercise of options held by Francis Fiorillo and Pamela Nelson, the date such options were granted, their exercise price, the number of options unvested as of May 7, 2003 and the terms of the original vesting schedule of such options. The terms of the option agreements provide for 12.5% acceleration of vesting of any unvested options upon a change in control of WaveSmith. Each individual's option agreement provides that all of such individual's unvested options will become vested if, at any time within 12 months following an acquisition of WaveSmith, such individual's employment is terminated either by WaveSmith or the acquiring or surviving entity without cause or voluntarily by such individual for good reason.

Disqualified Individual	Number of Shares of Common Stock Subject to the Option	Date Option Granted	Exercise Price per Share	Number of Shares Unvested as of May 7, 2003	Original Vesting Schedule
Francis Fiorillo	300,000	3/13/01	\$0.07	137,500	Options to acquire 75,000 shares vested on 3/19/02, options to acquire 6,250 shares vest per month thereafter until 3/13/05
Pamela Nelson	90,000	1/1/02	\$0.09	60,012	Options to acquire 22,500 shares vested on 1/1/03, options to acquire 1,872 shares vest per month thereafter until 1/1/06

In the case of these option grants, the amount that is treated as contingent on a change in control of WaveSmith as a result of the acceleration of vesting of the option is the sum of (i) the present value of the acceleration of vesting and (ii) to reflect the lapse of the individual's obligation to perform additional services, an amount equal to one percent (1%) of the value of the payment for each full calendar month for which the individual no longer has to perform services for the options to vest.

The present value of the acceleration of vesting of each unvested option as of the date of the merger of WaveSmith into CIENA is equal to the excess of (A) the fair market value of such option on such date over (B) the present value of the fair market value of such option, had the option vested in accordance with its terms (assuming the fair market value of such option on such later date is the same as its fair market value on the date of the merger of WaveSmith into CIENA). For purposes of Section 280G of the Code, the fair market value of an option is determined by applying a valuation model to the option. In establishing fair market value, the valuation model takes into account the volatility of the stock subject to the option, a risk free rate of return and the length of the remaining option term. This value will be greater than the difference between the option exercise price and fair market value of the stock subject to the option on the date of the merger. Present value generally is calculated based on 120% of the applicable federal rate in effect as of the date of the proposed merger of WaveSmith into CIENA (120% of the short-term applicable federal rate for May, 2003 is 1.82% and 120% of the mid-term applicable federal rate for May, 2003 is 3.78%).

The following example, while hypothetical and purely for illustrative purposes, sets forth the calculation used to determine the value of acceleration of vesting of options. Note that the following example does not reflect the fact that a portion of the value of the WaveSmith common stock is attributable to the change in liquidation preferences of the various classes of WaveSmith preferred stock, which changes are separately discussed below under the heading "Shifted Consideration":

Assume that on January 1, 2003, WaveSmith grants to a disqualified individual an option to acquire 150,000 shares of common stock with an exercise price of \$.01 per share. The terms of the grant provide that the options become fully vested on January 1, 2006, or upon a change in control of the company prior to such date, whichever date is earlier. On June 15, 2003, a change in control of the company occurs. On

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that day, the fair market of each share of WaveSmith common stock is \$.33. The ascertainable fair market value of the options, using valuation factors described in the prior paragraph is determined to be \$60,000. Assume that 120% of the applicable federal rate for short-term obligations for June 2003 is 2.50%.

The portion of the payment that is contingent on the change in control is the amount by which the present value of the accelerated payment on June 15, 2003 (\$60,000) exceeds the present value of the payment that was expected to be made on January 1, 2006, plus an amount reflecting the lapse of the obligation to continue to perform services. The value of the option on January 1, 2006 is deemed to be \$60,000, the amount of the accelerated payment. The present value on June 15, 2003 of a \$60,000 payment to be made on January 1, 2006 is \$56,345.19. Thus, the portion of the payment treated as contingent on a change in control of the company is \$21,654.81, the sum of (i) \$3,654.81 (\$60,000 - \$56,345.19) and (ii) \$18,000 (1% * 30 months * \$60,000), the amount reflecting the lapse of the obligation to continue to perform services.

Shifted Consideration

As a result of the merger of WS Contract Corp. into WaveSmith immediately prior to the merger of WaveSmith into CIENA, the liquidation preferences of the various classes of WaveSmith preferred stock will change, resulting in value of the WaveSmith common stock increasing and WaveSmith common stockholders receiving a greater number of shares of CIENA common stock pursuant to the merger than such stockholders would have received if the merger of WS Contract Corp. into WaveSmith had not occurred.

The chart below sets forth the number of shares of WaveSmith common stock or vested options to purchase WaveSmith common stock owned by each of the aforementioned individuals (or treated as owned by such individual under Section 318(a) of the Internal Revenue Code) as of the date of the merger of WaveSmith into CIENA, the number of CIENA shares or share equivalents to be issued to each individual and the portion of such CIENA shares that are attributable to the increase in value due to the merger of WS Contract Corp. into WaveSmith. If the payment in the form of shifted consideration is found to be contingent on the change in control of WaveSmith, the entire fair market value of such payment on the date of the change in control will be treated as a payment contingent on a change in control.

Disqualified Individual	Number of Shares of WaveSmith Common Stock or Common Stock Equivalents Owned	Number of CIENA Shares or Share Equivalents Received in the Merger	Number of CIENA Shares or Share Equivalents Attributable to Shifted Consideration
Thomas Burkardt	14,070,293	1,198,050	348,909
John Burnham	2,524,975	214,995	62,613
Robert Dalias	6,273,107	534,138	155,559
Robert Doucette	2,200,000	187,324	54,555
Francis Fiorillo	720,000	61,304	17,854
Pamela Nelson	1,000,000	85,147	24,799
John O Hara	5,527,699	470,669	137,074
Robert O Neil	5,825,523	496,028	144,458
James Philippou	2,247,788	191,391	55,741
Michael Regan	5,009,950	426,584	124,234
Gregg Savage	3,032,762	258,232	75,205
Gary Styskal	2,550,000	217,126	63,234

The closing price of CIENA common stock on May 7, 2003 was \$5.52 per share. The value of the CIENA common stock a WaveSmith shareholder receives in the merger may be higher or lower depending of the closing price of CIENA common stock on the date of the merger.

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Severance and Other Payments

The December 12, 2002 letter agreement between Thomas Burkardt and WaveSmith provides that in the event Thomas Burkardt's employment is terminated involuntarily without cause or Mr. Burkardt voluntarily terminates his employment with good reason following a change in control of WaveSmith, he will receive an amount (payable in 12 equal monthly installments) equal to his then-applicable base salary, plus the value of up to one year's employer COBRA premiums (so long as he is eligible for, and chooses to be covered under, COBRA). These payments are treated as contingent on a change in control of WaveSmith. WaveSmith estimates the present value of these payments to be approximately \$264,455.

Pursuant to agreements between each of John Burnham and Gregg Savage and CIENA, Messrs. Burnham and Savage will be entitled to receive severance payments equal in value to 16 weeks of their base salary. These payments are treated as contingent on a change in control of WaveSmith. WaveSmith estimates the present value of these payments to be approximately \$55,385 with respect to each of Messrs. Burnham and Savage.

In addition, the separation agreements between WaveSmith and each of Robert Dalias, John O'Hara and James Philippou provide each of them with severance payments, some of which have already been made. Robert Dalias's and John O'Hara's agreements entitle each of them to receive \$90,000, payable in 12 equal semi-monthly installments. The terms of James Philippou's separation agreement entitle him to receive \$35,000, payable in 6 semi-monthly installments. Payments made within one year of a change in control are presumed to be contingent on the change in control absent clear and convincing evidence to the contrary. If this presumption cannot be rebutted, then the present value of the severance payments will be treated as contingent on the change in control of WaveSmith.

Required Stockholder Approval

Each of the aforementioned disqualified individuals has agreed that his or her right to receive and/or retain the benefits of the portion of the payments listed herein that exceed 299% of his or her base amount be made contingent on the approval of stockholders of WaveSmith in accordance with the stockholder approval exception under Section 280G of the Internal Revenue Code. Each such individual's right to receive and/or retain such excess amount has therefore been made contingent on obtaining the consent of persons who own, immediately before the merger of WaveSmith into CIENA, more than 75 percent of the outstanding voting power of all outstanding capital stock of WaveSmith, *excluding* those shares of stock actually owned or constructively owned (under Section 318(a) of the Internal Revenue Code) by or for a disqualified individual who receives (or is to receive) payments that would be parachute payments if the stockholder approval requirements were not met, and certain related persons.

You are being asked to vote on the question of approving these payments for each of these individuals in the event the merger of WaveSmith into CIENA occurs. This vote is separate from your vote on whether or not to approve the proposed merger of WaveSmith into CIENA.

The stockholders of WaveSmith will not receive a direct economic benefit in the event the stockholder approval described in this disclosure statement is not received. If the payments are approved, the payments will be made in accordance with the pre-existing contractual commitments WaveSmith has with the disqualified individuals. If the payments are not approved, the affected individuals will select the portion of their payments they will forgo, to the extent necessary, in order to not exceed the limitation described above. The vote is a single vote to approve payments for all disqualified individuals.

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UNAUDITED PRO FORMA COMBINED FINANCIAL STATEMENT

The following unaudited pro forma combined statement of operations present the merger between CIENA and ONI Systems as if the merger had been completed on November 1, 2001. CIENA acquired ONI Systems, Inc. on June 21, 2002.

The unaudited pro forma combined financial data is based on estimates and assumptions that 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.

Table of Contents**UNAUDITED PRO FORMA COMBINED****STATEMENT OF OPERATIONS****Year Ended October 31, 2002****(In thousands, except per share data)**

	October 31, 2002 Historical CIENA	Period from October 1, 2001 to June 21, 2002 Historical ONI Systems	Adjustments	Pro Forma October 31, 2002 CIENA
Revenue	\$ 361,155	\$ 69,858	\$	\$ 431,013
Excess and obsolete inventory costs	286,475			286,475
Cost of goods sold	309,559	61,610		371,169
Gross profit (loss)	(234,879)	8,248		(226,631)
Operating expenses				
Research and development (exclusive of \$15,672, \$1,833, \$2,439 and \$19,944 deferred stock compensation)	239,619	51,213		290,832
Selling and marketing (exclusive of \$3,560, \$1,396, (\$684) and \$4,272 deferred stock compensation)	130,276	37,688		167,964
General and administrative (exclusive of \$1,092, \$731, \$213 and \$2,036 deferred stock compensation)	50,820	30,650		81,470
Deferred stock compensation costs	20,324	3,960	1,968 A	26,252
Amortization of goodwill		1,233	(1,233)B	
Amortization of intangible assets	8,972	3,363	(2,363)C	9,972
Restructuring costs	225,429	3,051		228,480
Goodwill impairment	557,286			557,286
Pirelli litigation	1,792			1,792
Provision for doubtful accounts	14,813			14,813
Total operating expenses	1,249,331	131,158	(1,628)	1,378,861
Income (loss) from operations	(1,484,210)	(122,910)	1,628	(1,605,492)
Other income (expense), net	(2,554)	2,197	(16,504) D	(16,861)
Income (loss) before income taxes	(1,486,764)	(120,713)	(14,876)	(1,622,353)
Provision for income taxes	110,735	364		111,099
Net income (loss)	\$(1,597,499)	\$(121,077)	\$(14,876)	\$(1,733,452)
Basic net loss per common share	\$ (4.37)			\$ (4.00)
Diluted net loss per common share and dilutive potential common share	\$ (4.37)			\$ (4.00)
	365,202		67,640 E	432,842

Weighted average basic common shares
outstanding

Weighted average basic common and
dilutive potential common shares
outstanding

365,202

67,640 E

432,842

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NOTES TO UNAUDITED PRO FORMA

COMBINED FINANCIAL DATA

NOTE 2 PRO FORMA ADJUSTMENTS

- A. 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.
- B. To eliminate historical goodwill amortization for ONI Systems. CIENA adopted Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets (SFAS No. 142), and ceased amortizing goodwill beginning on November 1, 2001.
- C. To eliminate historical amortization of the non-goodwill intangibles for ONI Systems and record amortization of intangibles associated with the ONI Systems acquisition for the period prior to the consummation date.
- D. To record accretion of notes acquired with the purchase of ONI Systems for entire twelve-month period.
- E. To adjust the CIENA weighted average common shares to reflect the acquisition of ONI Systems as of November 1, 2001.

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INFORMATION ABOUT CIENA

General

CIENA is a leader in intelligent optical networking systems and software, offering telecommunications network solutions to service providers and enterprises worldwide. CIENA's customers include long-distance carriers, local exchange carriers, Internet service providers, wireless and wholesale carriers, systems integrators, governmental, large businesses and non-profit institutions. CIENA offers network solutions that enable service providers to provision, manage and deliver economic, high-bandwidth services to their customers.

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 proxy statement/prospectus or set forth in CIENA's Annual Report on Form 10-K for the year ended October 31, 2002 and Quarterly Report on Form 10-Q for the quarter ended January 31, 2003. 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."

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INFORMATION ABOUT WAVESMITH

General

WaveSmith Networks designs, develops and markets a next generation multi-service switch platform designed to empower telecommunications carriers to cap their investments in aging technology, while they begin deploying next-generation platforms. In this way, WaveSmith's products embrace carriers' near-term, tactical requirements as well as their longer-term strategic visions. WaveSmith's Distributed Node (DN) multi-service switch platform is designed from the ground up to sustain and leverage today's layer 2 infrastructure while incorporating an evolutionary path to future technologies.

WaveSmith was incorporated in March 2000 in the state of Delaware and was a development stage company into 2002. The Company achieved its first revenues with multiple customers in 2002. Currently, WaveSmith's operating activities consist primarily of research and development, sales and marketing, product design, manufacturing and testing.

Table of Contents**SECURITY OWNERSHIP OF DIRECTORS, EXECUTIVE OFFICERS AND MORE THAN****FIVE PERCENT STOCKHOLDERS OF WAVESMITH**

The following table sets forth certain information regarding the beneficial ownership of WaveSmith's common stock as of May 7, 2003, assuming that all outstanding shares of WaveSmith preferred stock have been converted into common stock on that date: (i) by each person who is known by WaveSmith to own beneficially more than 5% of each of the classes of WaveSmith capital stock, on an as-converted basis; (ii) by each director of WaveSmith; (iii) by the chief executive officer and the five most highly compensated executive officers, other than the chief executive officer, of WaveSmith; and (iv) by all of the directors and all of the executive officers of WaveSmith as a group. Except as noted below, the address of each person listed on the table is c/o WaveSmith Networks, Inc., 35 Nagog Park, Acton, MA 01720.

As of May 7, 2003, 79,663,130 shares of common stock, 185,000 shares of series A preferred stock, 9,015,000 shares of series A-1 preferred stock, 2,353,370 shares of series B preferred stock, 33,333,331 shares of series B-1 preferred stock, and 92,963,301 shares of series C preferred stock of WaveSmith were issued and outstanding.

Each share of common stock is entitled to 1 vote. Each share of preferred stock is entitled to a number of votes equal to the number of shares of common stock into which such share of preferred stock may be converted into pursuant to WaveSmith's certificate of incorporation. Each share of series A preferred stock converts into 2 shares of common stock. Each share of series A-1 preferred stock converts into 3.51667 shares of common stock. Each share of series B preferred stock converts into 1 share of common stock. Each share of series B-1 preferred stock converts into 2.4 shares of common stock. Each share of series C preferred stock converts into 1 share of common stock. No other classes of capital stock are authorized under the WaveSmith certificate of incorporation.

The following table is based on 32,072,771 shares of series A and series A-1 preferred stock, 82,353,358 shares of series B and series B-1 preferred stock, 92,963,301 shares of series C preferred stock and 287,052,560 shares of common and preferred stock, calculated on an as-converted to common stock basis as of May 7, 2003. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and includes voting and investment power with respect to the shares of capital stock.

Name of Beneficial Owner(1)(2)	Common and Preferred Stock Outstanding on an As-Converted Basis		Series A and A-1 Preferred Stock Outstanding on an As-Converted Basis		Series B and B-1 Preferred Stock Outstanding on an As-Converted Basis		Series C Preferred Stock Outstanding on an As-Converted Basis	
	Amount and Nature of Beneficial Ownership	Percent of Class	Amount and Nature of Beneficial Ownership	Percent of Class	Amount and Nature of Beneficial Ownership	Percent of Class	Amount and Nature of Beneficial Ownership	Percent of Class
Michael Feinstein(3)(4) c/o Atlas Venture 890 Winter Street, Suite 320 Altham, MA 02451	58,066,677	20.23%	14,066,678	43.86%	23,999,999	29.14%	20,000,000	21.51%
Entities Affiliated with Atlas Venture(3)(5) 890 Winter Street, Suite 320 Waltham, MA 02451	58,066,677	20.23%	14,066,678	43.86%	23,999,999	29.14%	20,000,000	21.51%
G. Felda Hardymon(3)(6) c/o Bessemer Venture Partners 1865 Palmer Avenue, Suite 104 Larchmont, NY 10538	43,658,108	15.21%	14,066,678	43.86%	15,999,996	19.43%	13,591,434	14.62%
Entities Affiliated with Bessemer Venture Partners(3)(7) 1865 Palmer Avenue, Suite 104 Larchmont, NY 10538	43,658,108	15.21%	14,066,678	43.86%	15,999,996	19.43%	13,591,434	14.62%

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Name of Beneficial Owner(1)(2)	Common and Preferred Stock Outstanding on an As-Converted Basis		Series A and A-1 Preferred Stock Outstanding on an As-Converted Basis		Series B and B-1 Preferred Stock Outstanding on an As-Converted Basis		Series C Preferred Stock Outstanding on an As-Converted Basis	
	Amount and Nature of Beneficial Ownership	Percent of Class	Amount and Nature of Beneficial Ownership	Percent of Class	Amount and Nature of Beneficial Ownership	Percent of Class	Amount and Nature of Beneficial Ownership	Percent of Class
Robert C. Ketterson, Jr.(3)(8) c/o Fidelity Ventures 100 Summer Street, 27 th Floor Boston, MA 02110	43,333,333	15.10%	0	0%	26,666,666	32.38%	16,666,667	17.93%
Entities Affiliated with Fidelity Ventures(3)(9) 100 Summer Street, 27 th Floor Boston, MA 02110	43,333,333	15.10%	0	0%	26,666,666	32.38%	16,666,667	17.93%
Commonwealth Capital Ventures L.P.(3)(10) 20 William Street, Suite 225 Wellesley, MA 02481	7,992,357	2.78%	2,813,335	8.77%	2,666,665	3.24%	2,512,357	2.70%
Entities Affiliates with Venture Investment Management Company(3)(11) 177 Milk Street Boston, MA 02109	7,392,637	2.58%	0	0%	5,333,330	6.48%	2,059,307	2.22%
George B. Kaiser(3) c/o Argonaut Private Equity 6733 South Yale Tulsa, OK 74136	16,666,667	5.81%	0	0%	0	0%	16,666,667	17.93%
MultiWave Investment, Inc.(3)(12) 1201 North Market Street, Suite 1604 Wilmington, DE 19801	16,666,667	5.81%	0	0%	0	0%	16,666,667	17.93%
Thomas Burkardt(3)(13)	14,177,693	4.94%	70,333	0.22%	0	0%	37,067	0.04%
Robert J. Dalias(3)(14)	6,273,107	2.19%	0	0%	0	0%	0	0%
Robert O Neil(15)	5,825,523	2.03%	0	0%	0	0%	0	0%
Michael Regan(16)	5,009,950	1.75%	0	0%	0	0%	0	0%
John T. O Hara(3)(17)	5,527,699	1.93%	0	0%	0	0%	0	0%
Gregg Savage(18)	3,032,762	1.06%	0	0%	0	0%	0	0%
John Burnham(19)	2,524,975	*	0	0%	0	0%	0	0%
All executive officers and directors as a group (11 persons)(20)	189,629,827	66.06%	28,203,689	87.94%	66,666,661	80.95%	50,295,168	54.10%

- (1) The persons identified in the table above possess sole voting and investment power with respect to all shares shown as beneficially owned by them, except as noted in the footnotes below and subject to applicable community property laws.
- (2) The inclusion herein of any shares of WaveSmith capital stock deemed beneficially owned does not constitute an admission of beneficial ownership of those shares.
- (3) These WaveSmith stockholders have been party to a stockholders agreement since the time of their acquisition of WaveSmith capital stock that requires that they vote all of the voting securities of WaveSmith capital stock that they own or control to cause and maintain the election of the persons specified in the stockholders agreement to the WaveSmith board of directors. All of the current members of the WaveSmith board of directors have been elected pursuant to this voting arrangement. Under applicable federal securities laws, this voting arrangement may mean that each stockholder who is a party to the agreement is deemed to be the beneficial owner of all of the shares of WaveSmith capital stock owned by each of the stockholders who are parties to the agreement. Stockholders who are parties to

the stockholders agreement own 100% of WaveSmith's outstanding shares of series A and A-1 preferred stock; 100% of WaveSmith's outstanding shares of series B and B-1 preferred stock; 100% of WaveSmith's outstanding shares of series C preferred stock; 21.29% of WaveSmith's outstanding shares of common stock; and 78.16% of all of WaveSmith's outstanding shares of capital stock, on an as-converted basis.

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- (4) Includes 58,066,677 shares of WaveSmith capital stock, on an as-converted basis, held by the entities listed in note 5 below. Mr. Feinstein is a Senior Principal of Atlas Venture and an affiliate of Atlas Venture Associates V, Inc., the sole general partner of Atlas Venture Associates V, L.P., the sole general partner of the entities listed in note 5 below and may be deemed to share voting and investment power with respect to all shares held by such entities. Mr. Feinstein disclaims beneficial ownership of the shares held by the entities listed in note 5 below except to the extent of his direct pecuniary interest in those shares.
- (5) The holdings of the entities affiliated with Atlas Venture Associates V, Inc. are as follows: (i) Atlas Venture Entrepreneur Fund V, L.P. held an aggregate of 764,036 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 185,089 shares of series A-1 preferred stock, on an as-converted basis, (b) 315,789 shares of series B-1 preferred stock, on an as-converted basis, and (c) 263,158 shares of series C preferred stock, on an as-converted basis; (ii) Atlas Venture Fund V, L.P. held an aggregate of 45,899,707 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 11,119,225 shares of series A-1 preferred stock, on an as-converted basis, (b) 18,971,172 shares of series B-1 preferred stock, on an as-converted basis, and (c) 15,809,310 shares of series C preferred stock, on an as-converted basis; (iii) Atlas Venture Parallel Fund V-A C.V. held an aggregate of 5,701,467 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 1,381,182 shares of series A-1 preferred stock, on an as-converted basis, (b) 2,356,519 shares of series B-1 preferred stock, on an as-converted basis, and (c) 1,963,766 shares of series C preferred stock, on an as-converted basis; and (iv) Atlas Venture Parallel Fund V-B C.V. held an aggregate of 5,701,467 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 1,381,182 shares of series A-1 preferred stock, on an as-converted basis, (b) 2,356,519 shares of series B-1 preferred stock, on an as-converted basis, and (c) 1,963,766 shares of series C preferred stock, on an as-converted basis.
- (6) Includes 43,658,108 shares of WaveSmith capital stock, on an as-converted basis, held by the entities listed in note 7 below. Mr. Hardymon is a Managing Member of Deer V & Co. LLC, the general partner or managing member (as the case may be) of the entities listed in note 7 below and may be deemed to share voting and investment power with respect to all shares held by such entities. Mr. Hardymon disclaims beneficial ownership of the shares held by the entities listed in note 7 below except to the extent of his direct pecuniary interest in those shares.
- (7) The holdings of the entities affiliated with Deer V & Co. LLC are as follows: (i) Bessec Ventures V L.P. held an aggregate of 15,740,721 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 5,232,804 shares of series A-1 preferred stock, on an as-converted basis, (b) 5,681,599 shares of series B-1 preferred stock, on an as-converted basis, and (c) 4,826,318 shares of series C preferred stock, on an as-converted basis; (ii) Bessemer Venture Investors II L.P. held an aggregate of 2,760,150 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 984,667 shares of series A-1 preferred stock, on an as-converted basis, (b) 959,997 shares of series B-1 preferred stock, on an as-converted basis, and (c) 815,486 shares of series C preferred stock, on an as-converted basis; (iii) Bessemer Venture Partners V L.P. held an aggregate of 17,167,554 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 7,849,207 shares of series A-1 preferred stock, on an as-converted basis, (b) 5,038,404 shares of series B-1 preferred stock, on an as-converted basis, and (c) 4,279,943 shares of series C preferred stock, on an as-converted basis; (iv) BVE 2001 LLC held an aggregate of 256,761 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 138,830 shares of series B-1 preferred stock, on an as-converted basis, and (b) 117,931 shares of series C preferred stock, on an as-converted basis; (v) BVE 2001 (Q) LLC held an aggregate of 4,181,953 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 2,261,169 shares of series B-1 preferred stock, on an as-converted basis, and (b) 1,920,784 shares of series C preferred stock, on an as-converted basis; and (vi) BIP 2001 L.P. held an aggregate of 3,550,969 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 1,919,997 shares of series B-1 preferred stock, on an as-converted basis, and (b) 1,630,972 shares of series C preferred stock, on an as-converted basis.

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- (8) Includes 43,333,333 shares of WaveSmith capital stock, on an as-converted basis, held by the entities listed in note 9 below. Mr. Ketterson is a Vice President of Fidelity Investment Management, LLC, the ultimate general partner of the entities listed in note 9 below and may be deemed to share voting and investment power with respect to all shares held by such entities. Mr. Ketterson disclaims beneficial ownership of the shares held by the entities listed in note 9 below, except to the extent of his direct pecuniary interest in those shares.
- (9) The holdings of the entities affiliated with Fidelity Investment Management, LLC are as follows: (i) Fidelity Ventures III Limited Partnership held an aggregate of 42,116,531 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 25,917,864 shares of series B-1 preferred stock, on an as-converted basis, and (b) 16,198,667 shares of series C preferred stock, on an as-converted basis; and (ii) Fidelity Ventures Principals III Limited Partnership held an aggregate of 1,216,802 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 748,802 shares of series B-1 preferred stock, on an as-converted basis, and (b) 468,000 shares of series C preferred stock, on an as-converted basis.
- (10) The holdings of the entities affiliated with Commonwealth Venture Partners II, L.P. are as follows: (i) Commonwealth Capital Ventures II, L.P. held an aggregate of 7,615,839 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 2,680,799 shares of series A-1 preferred stock, on an as-converted basis, (b) 2,541,040 shares of series B-1 preferred stock, on an as-converted basis and (c) 2,394,000 shares of series C preferred stock, on an as-converted basis; and (ii) CCV II Associates, L.P. held an aggregate of 376,518 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 132,536 shares of series A-1 preferred stock, on an as-converted basis, (b) 125,625 shares of series B-1 preferred stock, on an as-converted basis and (c) 118,357 shares of series C preferred stock, on an as-converted basis.
- (11) The holdings of the entities affiliated with Venture Investment Management Company LLC are as follows: (i) VIMAC Early Stage Fund, L.P. held an aggregate of 5,544,478 shares of WaveSmith capital stock, on an as-converted basis consisting of (a) 3,999,998 shares of series B-1 preferred stock, on an as-converted basis, and (b) 1,544,480 shares of series C preferred stock, on an as-converted basis; (ii) VIMAC WS Limited Partnership held 1,333,332 shares of series B-1 preferred stock, on an as-converted basis; (ii) VIMAC LLC held 514,827 shares of series C preferred stock, on an as-converted basis.
- (12) MultiWave Investment, Inc. is a subsidiary of CIENA Corporation.
- (13) Consists of 70,333 shares of series A-1 preferred stock, on an as-converted basis and 37,067 shares of series C preferred stock, on an as-converted basis, held by TriTower Limited Partnership and 14,070,293 shares of common stock held by Thomas Burkardt personally, of which 2,019,514 shares are not subject to WaveSmith's right of repurchase. The vesting of 11,850,779 shares of common stock will accelerate fully upon consummation of the merger. Mr. Burkardt disclaims beneficial ownership of the shares held by TriTower Limited Partnership except to the extent of his direct pecuniary interest in those shares. Mr. Burkardt and his wife, Pamela Burkardt, are the general partners of TriTower Limited Partnership, which holds the shares for the benefit of certain members of Mr. Burkardt's family. All voting and investment power for TriTower Limited Partnership resides in Mr. Burkardt.
- (14) Consists of 5,473,107 shares of common stock held by Robert Dalias personally, 600,000 shares of common stock held by The Dalias Family Trust and 200,000 shares of common stock held by The Dalias Relatives Trust. Mr. Dalias disclaims beneficial ownership of the shares held by the foregoing entities. Marianne Dalias, Mr. Dalias' wife, and Donna Bernhardson, Mr. Dalias' sister, are the trustees of The Dalias Family Trust, which holds shares for Mr. Dalias' children. Marianne Dalias and Thomas Bernhardson, Mr. Dalias' brother-in-law, are the trustees of The Dalias Relatives Trust, which hold shares for the benefit of certain members of Mr. Dalias' family. All voting and investment power under these trusts resides in their trustees.

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- (15) Consists of 5,825,523 shares of common stock subject to WaveSmith's right of repurchase which lapses over time, of which the vesting of 1,456,380 shares will accelerate and be fully vested upon consummation of the merger.
- (16) Consists of 5,009,950 shares of common stock subject to WaveSmith's right of repurchase which lapses over time, of which the vesting of 1,252,487 shares will accelerate and be fully vested upon consummation of the merger.
- (17) Consists of 4,687,699 shares of common stock held by John O Hara personally, of which the vesting of 526,938 shares will accelerate and be fully vested upon consummation of the merger, and 840,000 shares of common stock held by The O Hara Childrens Trust. Mr. O Hara disclaims beneficial ownership of the shares held by The O Hara Childrens Trust. Gerald A. Polcari, Mr. O Hara's tax and financial advisor, is the trustee for The O Hara Childrens Trust, which holds shares for Mr. O Hara's children. All voting and investment power for The O Hara Childrens Trust resides in its trustee.
- (18) Consists of 3,032,762 shares of common stock of which 2,912,762 shares are subject to WaveSmith's right of repurchase which lapses. The vesting of 728,190 shares of common stock will accelerate and be fully vested upon consummation of the merger.
- (19) Consists of 2,524,975 shares of common stock of which 2,504,975 shares are subject to WaveSmith's right of repurchase which lapses over time, of which the vesting of 626,243 shares will accelerate and be fully vested upon consummation of the merger.
- (20) Includes 16,795,825 shares of common stock with regard to which WaveSmith's right of repurchase will lapse upon consummation of the merger.

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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 \$.01 per share. As of May 7, 2003, 435,061,879 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

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associates, 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 WaveSmith 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.

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COMPARISON OF STOCKHOLDER RIGHTS

General

Both WaveSmith and CIENA are corporations organized under the laws of the State of Delaware and are therefore subject to the Delaware corporation statute. However, there are some differences in the charters and bylaws of WaveSmith and CIENA 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 May 7, 2003, 435,061,879 shares of CIENA common stock were outstanding and no shares of CIENA preferred stock were outstanding. CIENA's board has the authority, without stockholder approval, to issue shares of preferred stock from time to time in one or more series and to fix the rights and preferences, including voting rights, of each such series of preferred stock, which rights and preferences may be superior to that of CIENA's common stock.

WaveSmith. WaveSmith is authorized to issue 400,000,000 shares of common stock, 9,200,000 shares of series A preferred stock, 9,200,000 shares of series A-1 preferred stock, 38,064,993 shares of series B preferred stock, 38,064,993 shares of series B-1 preferred stock and 110,640,000 shares of series C preferred stock. As of May 7, 2003, WaveSmith had issued and outstanding 79,663,130 shares of common stock, 185,000 shares of series A preferred stock, 9,015,000 shares of series A-1 preferred stock, 2,353,370 shares of series B preferred stock, 33,333,331 shares of series B-1 preferred stock and 92,963,301 shares of series C preferred stock.

As of the record date, there were outstanding warrants to purchase 1,377,861 shares of series B preferred stock, 640,000 shares of series C preferred stock and 150,000 shares of common stock. WaveSmith has reserved 1,377,861 shares of series B preferred stock, 640,000 shares of series C preferred stock and 150,000 shares of common stock for issuance upon the exercise of these warrants. In addition, options to purchase 2,573,505 shares of common stock were outstanding under WaveSmith's Amended and Restated 2000 Stock Option and Incentive Plan.

Voting Rights

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

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

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

Board of Directors. Pursuant to a stockholder agreement between certain holders of WaveSmith preferred stock and common stock:

Bessemer Venture Partners V L.P. Representative. Bessemer Venture Partners, a holder of WaveSmith's series A-1, series B-1 and series C preferred stock, is entitled to designate one member and fill any vacancy caused by the resignation, death or removal of the member. G. Felda Hardyman currently serves as the Bessemer Venture representative.

Atlas Venture Fund V L.P. Representative. Atlas Venture, a holder of WaveSmith's series A-1, series B-1 and series C preferred stock, is entitled to designate one member and fill any vacancy caused by the resignation, death or removal of the member. Michael Feinstein currently serves as the Atlas Venture representative.

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Fidelity Ventures III Limited Partnership Representative. Fidelity Ventures, a holder of WaveSmith's series B-1 and series C preferred stock, is entitled to designate one member and fill any vacancy caused by the resignation, death or removal of the member. Robert C. Ketterson, Jr. currently serves as the Fidelity Ventures representative.

Stockholders Representatives. Stockholders, defined in the stockholder agreement as (i) Robert J. Dalias, (ii) The Dalias Family Trust, (iii) The Dalias Relatives Trust, (iv) High Street Investors 2000, (v) John T. O'Hara and (vi) The O'Hara Children's Trust, all holders of WaveSmith's common stock, are entitled to designate one member and fill any vacancy caused by the resignation, death or removal of the member. Robert J. Dalias currently serves as the Stockholders representative.

At-Large Representatives. The chief executive officer of WaveSmith is entitled to designate two at-large members, both of whom must be approved by a majority of holders of WaveSmith outstanding common stock and a majority of holders of WaveSmith outstanding preferred stock all voting together as a single class (assuming conversion of all outstanding preferred stock) and fill any vacancy caused by resignation, death or removal of these members. Each of the at-large board sets are currently vacant.

Chief Executive Officer. WaveSmith's chief executive officer, currently Thomas M. Burkardt, is entitled to serve on the board of directors.

Protective Provisions. For so long as an aggregate of 2,300,000 shares of series A preferred stock and series A-1 preferred stock remain outstanding, the consent of the holders of a majority of the series A preferred stock and series A-1 preferred stock, voting together as a single class, is necessary to take any of the following actions:

enter into any sale of all or substantially all of the assets of WaveSmith, consolidate, merge or convert or liquidate WaveSmith;

declare or pay any dividend on any class of capital stock or repurchase any shares of capital stock, except for redemptions of preferred stock, and except for repurchases of stock issued under any stock or option plan approved by the board of directors pursuant to an agreement approved by the board of directors and repurchases under the current stockholders agreement, as may be amended;

effect any recapitalization or reclassification of shares of capital stock;

amend or repeal any provision of WaveSmith's certificate of incorporation or its by-laws in any manner that would materially and adversely change any of the rights, preferences or privileges of the series A preferred stock and/or the series A-1 preferred stock or holders thereof;

authorize or issue any securities senior or on par with the series A preferred stock or the series A-1 preferred stock with respect to dividends, redemptions or payments made in liquidation;

increase or decrease the number of authorized shares of series A preferred stock or series A-1 preferred stock; or

amend the sections relating to the protective provision of the series A preferred stock and series A-1 preferred stock.

For so long as an aggregate of 7,222,222 shares of series B preferred stock and series B-1 preferred stock remain outstanding, the consent of the holders of sixty percent (60%) of the series B preferred stock and series B-1 preferred stock, voting together as a single class, is necessary to take any of the following actions:

enter into any sale of all or substantially all of the assets of WaveSmith, consolidate, merge or convert or liquidate WaveSmith;

declare or pay any dividend on any class of capital stock or repurchase any shares of capital stock, except for redemptions of preferred stock, and except for repurchases of stock issued under any

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stock or option plan approved by the board of directors pursuant to an agreement approved by the board of directors and repurchases under the current stockholders agreement, as may be amended;

effect any recapitalization or reclassification of shares of capital stock;

amend or repeal any provision of WaveSmith's certificate of incorporation or its by-laws in any manner that would materially and adversely change any of the rights, preferences or privileges of the series B preferred stock and/or the series B-1 preferred stock or holders thereof;

authorize or issue any securities senior or on par with the series B preferred stock or the series B-1 preferred stock with respect to dividends, redemptions or payments made in liquidation;

increase or decrease the number of authorized shares of series B preferred stock or series B-1 preferred stock; or

amend the sections relating to the protective provision of the series B preferred stock and series B-1 preferred stock.

For so long as 27,500,000 shares of series C preferred stock remain outstanding, the consent of the holders of seventy-five percent (75%) of the series C preferred stock, voting as a separate class, is necessary to take any of the following actions:

enter into any sale of all or substantially all of the assets of WaveSmith, consolidate, merge or convert or liquidate WaveSmith;

acquire greater than 50% of the voting control of any other entity or all or substantially all of the assets of another entity;

declare or pay any dividend on any class of capital stock or repurchase any shares of capital stock, except for redemptions of preferred stock, and except for repurchases of stock issued under any stock or option plan approved by the board of directors pursuant to an agreement approved by the board of directors and repurchases under the current stockholders agreement, as may be amended;

effect any recapitalization or reclassification of shares of capital stock;

amend or repeal any provision of WaveSmith's certificate of incorporation or its by-laws in any manner that would materially and adversely change any of the rights, preferences or privileges of the series C preferred stock or holders thereof;

authorize or issue any securities senior or on par with the series C preferred stock with respect to dividends, redemptions or payments made in liquidation;

increase or decrease the number of authorized shares of series C preferred stock; or

amend the sections relating to the protective provision of the series C preferred stock.

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.

WaveSmith. WaveSmith's by-laws provide that the board of directors will have at least one member and that the size of the board of directors may be increased by a majority vote of the directors then in office or by the stockholders at the annual meeting of stockholders. WaveSmith's bylaws provide for a single class of directors who are elected at the annual meeting of stockholders and hold office until their successors are elected and qualified. Certain stockholders have the right to designate directors as described above.

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Removal of Directors

CIENA. CIENA's charter provides that, subject to the rights of the 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.

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

Filling Vacancies on the Board of Directors

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

WaveSmith. WaveSmith's by-laws provide that vacancies may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director. WaveSmith's stockholder agreement provides that any vacancy on the board of directors may be filled by a majority of the shares entitled to elect a director to the vacant seat, except that in the case of a vacancy created by the resignation, removal, incapacity or death of a director who is also the chief executive officer, the vacancy is filled by the board of directors, which designates the new chief executive officer. The directors so chosen serve until the next annual election and until their successors are duly elected and qualified.

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 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.

WaveSmith. WaveSmith's charter may be amended, with the following exceptions, in accordance with Delaware law, which provides that the charter may be amended with the affirmative vote of at least a majority of the voting power of all outstanding shares of the capital stock of WaveSmith (assuming conversion of all outstanding preferred stock) entitled to vote on the election of directors:

no provision affecting each series of preferred stock may be amended, modified or waived in any manner that affects similarly the holders of each series of preferred stock without the vote of at least a majority of the then outstanding shares of preferred stock voting together as a single class;

no provision affecting series A preferred stock or series A-1 preferred stock may be amended, modified or waived in any manner that affects differently the holders of series B preferred stock, series B-1 preferred stock and series C preferred stock without the vote of at least a majority of the then outstanding shares of series A preferred stock and series A-1 preferred stock voting as a single class;

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no provision affecting series B preferred stock or series B-1 preferred stock may be amended, modified or waived in any manner that affects differently the holders of series A preferred stock, series A-1 preferred stock and series C preferred stock without the vote of at least sixty percent (60%) of the then outstanding shares of series B preferred stock and series B-1 preferred stock voting as a single class; and

no provision affecting series C preferred stock may be amended, modified or waived in any manner that affects differently the holders of series A preferred stock, series A-1 preferred stock, series B preferred stock and series B-1 preferred stock without the vote of at least seventy-five percent (75%) of the then outstanding shares of series C preferred stock voting as a separate class.

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 of directors) 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 then outstanding shares of the capital stock of CIENA entitled to vote on the election of directors voting together as a single class.

WaveSmith. WaveSmith's by-laws provide that they may be amended by the stockholders or by the board of directors, when such power is conferred upon the board of directors by the certificate of incorporation, at any regular meeting of the board of directors or of the stockholders or at any special meeting of the board of directors or of the stockholders if notice of such amendment is contained in the notice of such special meeting of stockholders. With respect to amendment by the stockholders, Delaware law provides that a majority vote of the holders of the outstanding voting shares at any regular meeting of the stockholders is required to amend the by-laws.

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.

WaveSmith. WaveSmith's by-laws provide that any action that must or may be required to be taken by stockholders may be taken by written consent.

Notice of Stockholder Actions

CIENA. Neither CIENA's charter nor its bylaws require advance notice of stockholder nominations of directors or any other business to be brought by stockholders before any meeting of stockholders, except in the case of a special meeting of the stockholders, which requires notice of the purposes for which a meeting is called.

WaveSmith. WaveSmith's by-laws require at least ten (10) days and no more than sixty (60) days advance notice of business to be brought by stockholders before any annual or special meeting of stockholders.

Right to Call Special Meeting of Stockholders

CIENA. CIENA's bylaws provide that a special meeting of stockholders 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 the 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.

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WaveSmith. WaveSmith's by-laws provide that a special meeting of stockholders may be called at any time by the board of directors or the chief executive officer and must be called by the chief executive officer or secretary at the request in writing of a majority of the board of directors or at the request in writing of stockholders owning a majority in amount of the entire capital stock issued and outstanding and entitled to vote, with such written request stating the purpose or purposes for the proposed meeting. Business transacted at any special meeting must be limited to matters related to the purpose or purposes stated in the notice of meeting.

Dividends

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

WaveSmith. WaveSmith's charter provides that holders of series A preferred stock and series A-1 preferred stock are entitled to receive non-cumulative dividends at the rate of \$0.10 per annum, holders of series B preferred stock and series B-1 preferred stock are entitled to receive non-cumulative dividends at the rate of \$0.09 per annum and holders of series C preferred stock are entitled to receive non-cumulative dividends at the rate of \$0.03 per annum, with the amounts to be adjusted upon a stock split, reverse split or similar event, when and if declared by the board of directors 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.

WaveSmith. WaveSmith's new certificate, after the merger of WS Contract Corp. with WaveSmith, provides that in the event WaveSmith liquidates, dissolves or winds up, after payment of WaveSmith's liabilities, the holders of series A preferred stock, series A-1 preferred stock, series B preferred stock, series B-1 preferred stock and series C preferred stock shall be entitled to receive in preference to the holders of the common stock, a per share amount equal to \$1.016030, \$0.673904, \$0.783015, \$0.506835 and \$0.286181, respectively, plus any declared but unpaid dividends. If the assets are insufficient to pay such amounts, the assets shall be distributed ratably to holders of series C preferred stock. If the series C preferred stock preference is paid in full, the remaining assets shall be distributed ratably to the holders of series A-1 preferred stock and series B-1 preferred stock. If the series A-1 preferred stock, series B-1 preferred stock and series C preferred stock preferences are paid in full, the remaining assets shall be distributed ratably to the holders of series A preferred stock and series B preferred stock. If all preferred stock preferences are paid in full, the remaining assets shall be distributed ratably among holders of common stock and preferred stock based on the number of shares of common stock held by each holder, assuming the conversion of all shares of preferred stock, provided that the preferred holders are limited to total consideration of \$6.25 per share of series A and A-1 preferred stock, \$4.50 per share of series B and B-1 preferred stock and \$1.50 per share of series C preferred stock. Unless the holders of a majority of the outstanding shares of WaveSmith's preferred stock, voting on an as-converted basis, vote otherwise, any of the following events will be deemed a liquidation, dissolution or winding up:

the merger, consolidation or sale of WaveSmith with or into any other corporation in which the stockholders immediately prior to the merger, consolidation or sale do not own greater than fifty percent (50%) of the surviving corporation's voting power; or

a sale of all or substantially all of the assets of WaveSmith.

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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WaveSmith. Holders of series A preferred stock, series A-1 preferred stock, series B preferred stock, series B-1 preferred stock and series C preferred stock have the right at any time to convert any shares of preferred stock into shares of common stock based on the conversion rates of 2, 3.51667, 1, 2.4 and 1, respectively, although these conversion rates are subject to adjustment as described below. The WaveSmith preferred stock will automatically convert into common stock, at the then effective applicable conversion rate, upon the earliest to occur of the closing of a firm commitment underwritten public offering of WaveSmith common stock in which the gross proceeds are not less than \$25 million and the price to the public is not less than \$1.20 per share or the election of the holders of a majority of the then outstanding shares of preferred stock, voting together as a single class.

The number of shares of common stock into which preferred stock is convertible will be subject to adjustment in the following circumstances, subject to certain exceptions:

WaveSmith issues or sells shares of common stock without consideration or at a price less than \$0.625 for series A preferred stock, \$0.3554502 for series A-1 preferred stock, \$0.90 for series B preferred stock, \$0.3750 series B-1 preferred stock and \$0.30 for series C preferred stock. The issuance of warrants, options or purchase rights under certain circumstances is deemed an issuance of common stock;

any issuance of common stock as a dividend or other distribution;

any subdivision or combination of outstanding shares of common stock;

any adjustment of the common stock issuable upon the conversion of the preferred stock, whether by capital reorganization, reclassification or otherwise; or

any merger or consolidation with or into another corporation or the sale of all or substantially all of WaveSmith's assets.

Registration Rights

CIENA. The common stock of CIENA is, and the shares to be issued in the merger will be, registered under the Securities Act of 1933.

WaveSmith. Set forth below is a summary of the registration rights of certain holders of common stock and the holders of preferred stock pursuant to WaveSmith's Second Amended and Restated Registration Rights Agreement entered into among WaveSmith and many of its stockholders, including all holders of preferred stock. The term registrable securities, as used below, means WaveSmith common stock issued or issuable upon conversion of the preferred stock and upon exercise of outstanding warrants to purchase preferred stock and common stock held by WaveSmith's founders. Registrable securities does not include any securities sold by a person in a transaction in which the registration rights are not assigned, sold to the public or sold pursuant to Rule 144 under the Securities Act.

Demand Registration Rights. If holders of at least 30% of the registrable securities then outstanding and entitled to registration request in writing that WaveSmith file a registration statement under the Securities Act covering all the registrable securities that the holders request to be registered, WaveSmith is obligated to use its best efforts to cause the requested shares to be registered. However, it is not obligated to effect any registration:

prior to the earlier of six months after the effective date of its initial public offering with an aggregate offering price of at least \$25 million and January 1, 2004;

if the registrable securities are offered at a proposed offering price to the public of less than \$7,500,000;

after effecting three demand registrations;

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from the time of filing of any other registration statement pertaining to an underwritten public offering of securities for the account of WaveSmith or any holder of registrable securities through 180 days following the effective date of such registration statement;

from the time of filing of any other registration statement filed pursuant to a demand registration through 12 months following the effective date of such registration statement;

if, in the case of WaveSmith's initial public offering, WaveSmith and the requesting holders of registrable securities are unable to obtain the commitment of an underwriter selected pursuant to procedures set forth in the Registration Rights Agreement; or

for a period of up to 90 days after the date of a demand registration if, at the time of the request, (i) WaveSmith is engaged or plans to engage within 90 days of the request in a firm commitment underwritten public offering of common stock in which the holders of registrable securities include registrable securities pursuant to a piggyback registration or (ii) WaveSmith is currently engaged in a self-tender or exchange offer and the filing of a registration would result in a violation of the Exchange Act.

WaveSmith has the right to delay such registration for a period not in excess of 120 days once in any 12-month period if it furnishes a certificate signed by the chief executive officer stating that, in the good faith judgment of the board of directors, it would not be in the best interest of WaveSmith and its stockholders for such registration to be filed.

Piggyback Registration Rights. The holders of registrable securities are also entitled to piggyback registration rights on all WaveSmith registrations, excluding registrations relating to any employee benefit plan or corporate reorganization or a registration in which the only security being registered is common stock issuable upon conversion of convertible debt securities that are also being registered. If the registration is an underwritten offering, then the holder's participation shall be conditioned upon the party agreeing to participate in the underwriting by executing the underwriting agreement. If the underwriter of the registration determines that marketing factors require a limitation on the aggregate amount of securities sold on the market, WaveSmith is required to include in the offering only the number of securities which the managing underwriter believes marketing factors allow. No cut-back can reduce the amount of securities of the selling holders included in the registration to below 20% of the total amount of securities included in the registration, unless the registration is with respect to WaveSmith's initial public offering from which all registrable securities may be excluded.

Form S-3 Registration Rights. Any holder of registrable securities may also demand up to two registrations on Form S-3 provided Form S-3 is available for such offering and the aggregate proceeds are not less than \$500,000. WaveSmith may delay such registration for a period not in excess of 90 days once in any 12-month period if it furnishes a certificate signed by its chief executive officer stating that, in the good faith judgment of the board of directors, it would not be in the best interests of WaveSmith and its stockholders for such registration to be filed.

Indemnification. To the extent permitted by law, WaveSmith will indemnify the other parties to the agreement and certain related parties against any losses, claims, damages or liabilities, joint or several, to which they may become subject based on any untrue statement or alleged untrue statement of material fact contained in, or material fact omitted from, a registration statement covering registrable securities, or any other violation or alleged violation of any state or federal securities laws by WaveSmith.

To the extent permitted by law, each investor holding registrable securities included in a registration that WaveSmith effected must indemnify WaveSmith, its officers, directors, employees, agents, control persons and underwriters and any other parties and certain related parties selling securities in such registration against any losses, claims, damages or liabilities, joint or several, to which they may become subject based on any of the violations enumerated above to the extent such violation occurs in reliance upon written information supplied by such investor for use in such registration.

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Transferability. The aforementioned registration rights may be transferred to:

any affiliate, subsidiary, partner, member or stockholder of any holder;

any immediate family member or trust for the benefit of any holder or family member of any holder;

any trust in respect of which any holder serves as trustee;

a family limited partnership, limited liability company or similar estate planning vehicle all partners or members of which are members of any holder's immediate family; or

in connection with the sale or transfer of not less than an aggregate of 500,000 shares of registrable securities or some lesser number if the number represents all the registrable securities held by any holder, provided any such transfer is in accordance with the securities laws.

Expenses. WaveSmith is obligated to bear registration expenses, exclusive of underwriting discounts and commissions, for all of the above-described demand, piggy-back and S-3 registrations, including the reasonable fees and disbursements of one counsel for all of the selling stockholders.

Market Standoff. Each holder of registrable securities has agreed that it will not, upon the request of WaveSmith or its underwriter, sell, transfer or otherwise dispose of any common stock or other securities of WaveSmith, held by the holder, other than those included in the registration, for up to 180 days (90 days for certain stockholders) following the effective date of a registration statement filed under the Securities Act relating to WaveSmith's initial public offering, provided all of its officers and directors who hold stock or options to purchase or common stock are similarly bound.

Termination. The above registration rights terminate upon the earlier of (i) five years after the closing date of WaveSmith's initial public offering or (ii) with respect to any holder, the time that such holder is able to sell all of their shares pursuant to Rule 144(k) of the Securities Act.

Amendment. Registration rights may be amended or waived upon WaveSmith's consent and the consent of holders holding or having the right to acquire in the aggregate a majority of the registrable securities then outstanding.

Additional Rights of WaveSmith Stockholders

In connection with the merger, WaveSmith must terminate, effective upon the consummation of the merger, agreements providing the following rights:

Preemptive Rights. Until the earlier of (i) a firm commitment underwritten public offering with aggregate gross proceeds to WaveSmith of at least \$25 million at a price per share of common stock of at least \$1.20 or (ii) less than 16,500,000 shares of series C preferred stock remain outstanding, holders of an aggregate of at least 3,300,000 shares of WaveSmith common stock issued or issuable upon conversion of preferred stock, have the right in the event that WaveSmith proposes to offer securities to any person to purchase on a pro rata, fully diluted basis, all or any portion of such securities. These preemptive rights do not apply to:

any shares of WaveSmith common stock or options therefor, issued to WaveSmith employees, officers, directors, consultants, service providers, vendors and advisors pursuant to stock or option plans or other arrangements approved by a majority of the board of directors, with such majority including the Bessemer Venture Representative or the Atlas Venture Representative;

any shares of WaveSmith common stock issuable upon conversion of preferred stock or upon a stock split, stock dividend, recapitalization or similar transaction;

securities offered by WaveSmith to the public pursuant to a firm commitment underwritten public offering with aggregate gross proceeds to WaveSmith of at least \$25 million at a price per share of common stock of at least \$1.20;

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securities issued for non-cash consideration pursuant to the acquisition of another business by merger, purchase of assets or other reorganization approved by a majority of the board of directors, with such majority including either the Bessemer Venture Representative or the Atlas Venture Representative and the Fidelity Ventures Representative;

securities issued to financial institutions and leasing companies in connection with borrowing or leasing arrangements, landlords and service companies approved by a majority of the board of directors, with such majority including either the Bessemer Venture Representative or the Atlas Venture Representative and the Fidelity Ventures Representative;

securities issued to a non-financial corporation in connection with a strategic alliance, joint venture, license arrangement, distribution arrangement development arrangement, funding arrangement or similar arrangement approved by a majority of the board of directors;

securities issued to acquire technology or licenses the terms of which are approved by a majority of the board of directors, with such majority including either the Bessemer Venture Representative or the Atlas Venture Representative and the Fidelity Ventures Representative;

securities issued upon exercise of warrants to purchase preferred stock issued to Silicon Valley Bank, GATX Ventures, Inc. and Comdisco, Inc. pursuant to a loan and security agreement; or

securities issued upon exercise of warrants to purchase preferred stock issued to Comerica Bank pursuant to a loan and security agreement.

Inspection and Information Rights. Each holder of at least 3,300,000 shares of WaveSmith common stock on an as-converted basis is entitled to the delivery of:

annual financial statements within 120 days following the end of each fiscal year;

quarterly financial statements within 45 days following the end of each of the first three quarters of the year;

monthly unaudited consolidated balance sheets within 30 days following the end of each month; and

a budget, prepared on a monthly basis, and operating plan for the fiscal year at least 30 days prior to the beginning of each fiscal year.

Each holder of at least 3,300,000 shares of WaveSmith common stock on an as-converted basis and the authorized representatives of such stockholder is entitled to visit and inspect WaveSmith's properties, to examine its books of account and records and to discuss its affairs, all at such reasonable times as may be requested by the stockholder, and to be provided other information that such stockholder may reasonably request unless a majority of the board of directors determines in good faith that such actions could be materially detrimental to WaveSmith, with such majority including either the Bessemer Venture Representative or the Atlas Venture Representative and the Fidelity Ventures Representative.

Each holder of at least 3,300,000 shares of WaveSmith common stock on an as-converted basis is entitled to written notice of any suit or proceeding commenced against WaveSmith that, if adversely determined, would result in a material adverse change in the condition or business of WaveSmith.

As long as Commonwealth Capital Ventures II, L.P. and its affiliates own at least 7,500,000 shares of common stock, VIMAC Early Stage Fund, L.P. and its affiliates own at least 7,250,000 shares of common stock and George B. Kaiser owns at least 16,000,000 of common stock (assuming the conversion of all outstanding preferred stock), these stockholders or their representatives are entitled to attend all meetings of the board of directors in a non-voting, observer capacity and to receive notice of board of directors meetings and a copy of all materials provided to directors. However, WaveSmith has the right to withhold any information and to exclude the observer from any meeting or portion thereof if WaveSmith reasonably believes that access to the information or attendance at the meeting would involve the disclosure of highly confidential information, would impair the attorney-client privilege between WaveSmith and its legal

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counsel or if including such observers would reasonably be inconsistent with the board of directors' fiduciary duties, as determined in good faith by the board of directors.

CIENA Side Letter

In connection with CIENA's equity investment in WaveSmith, CIENA and WaveSmith entered into a letter agreement that entitles CIENA to certain rights. These rights include:

observer status on the WaveSmith board of directors;

right to notification of any proposed public offering of WaveSmith capital stock;

certain rights related to third party offers to acquire WaveSmith, described in greater detail below; and

the right to receive a fee upon the closing of an acquisition of WaveSmith by a third party if WaveSmith had entered into a definitive acquisition agreement with that third party prior to July 1, 2003, described in greater detail below.

If prior to April 1, 2004, WaveSmith receives an acquisition proposal from a third party, it is required to give CIENA notice of that proposal either within five days of the receipt of a written offer, or ten days prior to the execution of a definitive acquisition agreement. If that notice is received by CIENA prior to July 1, 2003, then CIENA has five days during which it may submit an offer to acquire WaveSmith. If prior to July 1, 2003, WaveSmith enters into a definitive acquisition agreement with a third party and that transaction subsequently closes, CIENA is entitled to receive from WaveSmith an amount equal to 5% of the total consideration received by WaveSmith or its stockholders. Therefore, if WaveSmith were to terminate the merger agreement prior to July 1, 2003 in order to accept an alternative acquisition proposal and that alternative acquisition proposal is completed, CIENA would be entitled under the letter agreement to receive 5% of the consideration paid to WaveSmith or its stockholders as a result of that proposal.

In connection with the letter agreement, CIENA entered into stockholder option agreements with certain stockholders of WaveSmith to provide CIENA an option to acquire WaveSmith. Under the stockholder option agreements, the stockholders granted an irrevocable option to CIENA to purchase the shares of capital stock owned by the respective stockholder. CIENA agreed in the letter agreement that if it exercises its rights to purchase shares of WaveSmith capital stock pursuant to these stockholder option agreements, it will acquire the remaining shares of capital stock of WaveSmith through a merger or other business combination. The letter agreement provides that the total consideration payable by CIENA for WaveSmith in connection with an acquisition of WaveSmith in this manner is \$150 million, plus an earn out payment. The earn out is equal to two times the gross profit attributable to sales of WaveSmith's products in the 12-month period following the close of the acquisition. The letter agreement provides that if CIENA acquires WaveSmith pursuant to the stockholder option agreements, then 10% of the earn out amount (as described below) would be set aside to be used as retention bonuses for employees who would be designated by the WaveSmith board of directors. Below is a summary of the terms and conditions required by the stockholder option agreements.

Exercise. CIENA may exercise the option on or after July 1, 2003 until March 31, 2004 subject to the following exceptions:

the option is not exercisable if WaveSmith has executed a definitive agreement prior to July 1, 2003 to (i) consummate any merger or consolidation where the voting securities of WaveSmith outstanding immediately prior to the merger or consolidation represents less than a majority of the voting power of the voting securities of the surviving entity, (ii) sale or transfer all or substantially all of WaveSmith's assets or (iii) sale at least eighty percent (80%) of the voting power of WaveSmith's voting securities and such transaction subsequently closes; and

the option is immediately exercisable if a stockholder breaches any covenants in the Option Agreement.

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If CIENA determines to exercise its option with respect to one stockholder, it must exercise options to purchase all the shares subject to substantially identical agreements.

Termination. The option terminates upon the earliest of:

the closing of an initial public offering that yields gross proceeds of at least \$80 million before June 30, 2003, with such date subject to extension under certain circumstances;

March 31, 2004 subject to extension under certain extensions;

the execution of a definitive agreement to (a) consummate any merger or consolidation where the outstanding voting securities of WaveSmith or CIENA immediately prior to the merger or consolidation represent less than a majority of the voting power of the voting securities of the surviving entity, (b) sale or transfer all or substantially all of WaveSmith's or CIENA's assets or (c) sale at least eighty percent (80%) of the voting power of WaveSmith's or CIENA's voting securities and where such transaction subsequently closes;

upon CIENA's refusal to participate in its proportionate percentage of any new round of equity financing that occurs after March 17, 2003;

the first date on which CIENA or one of its affiliates, successors or assigns no longer owns at least twenty percent (20%) of series C preferred stock purchased by MultiWave;

the date CIENA executes a definitive agreement with any entity that is developing, selling or licensing multi-service edge Asynchronous Transfer Mode switching equipment for telecommunications systems (a WaveSmith Competitor) to distribute or resell such products to certain customers in the United States;

the execution of a definitive agreement for the acquisition of a WaveSmith Competitor by CIENA; or

the expiration date of the Reseller Agreement between WaveSmith and CIENA.

Notwithstanding these dates and events, if the option cannot be exercised because of any applicable judgment, decree, order, law or regulation, the option will not terminate until the earlier of:

the date upon which such impediment is final and not subject to appeal;

5:00 p.m. New York City time on the tenth business day after such impediment is removed; or

March 31, 2005.

Exercise Price. The purchase price calculation for the shares treats all outstanding unexercised options or warrants as fully exercised, and if the shares subject to the option constitute an option or warrant, the purchase price calculation reduces the purchase price by the exercise price payable upon full exercise of the warrant or option. The purchase price is payable, at CIENA's option, in one of the following ways:

cash in an amount equal to, (i) for shares having a liquidation preference, the liquidation preference calculated in accordance with WaveSmith's charter based on an assumed liquidation value of \$150 million and (ii) for shares having no liquidation preference, the common share equivalent value after giving effect to all liquidation preferences and all rights of participation provided in WaveSmith's charter based on an assumed liquidation value of \$150 million;

the number of shares of CIENA common stock having a value, determined by the greater of (i) the average closing price of CIENA's common stock for the 20 trading days preceding the date of the option exercise or (ii) the average closing price of CIENA's common stock for the 20 trading days preceding the date of the closing for the purchase of the shares subject to the option, equal to the relevant common share equivalent value after giving effect to all liquidation preferences and all rights of participation provided in WaveSmith's charter based on an assumed liquidation value of \$150 million; or

a combination of cash and CIENA's common stock as calculated above.

If the sum of the purchase price of all the options and the consideration payable under the letter agreement to holders of WaveSmith preferred stock exceeds \$130 million, the exercise price is reduced so

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that the sum does not exceed \$130 million, with the reduction applied ratably among all participating holders.

If the consideration payable under the letter agreement to holders of shares of common stock is less than \$20 million, CIENA must pay the difference between \$20 million and the aggregate consideration payable to holders of shares of common stock.

Registration. CIENA is required to file and use its reasonable best efforts to have declared effective a shelf registration covering the resale of CIENA's common stock on Form S-3 promptly after the closing of the purchase of the options and maintain the effectiveness of the registration statement until the earlier of (i) two years from the date of effectiveness and (ii) such time as such shares may be sold pursuant to Rule 144 without regard to the volume restrictions under Rule 144(e). CIENA may suspend the use of any prospectus associated with the registration statement for up to 120 days in any 12-month period if CIENA finds it necessary to do so due to the pendency of a material corporate transaction or other material development. CIENA's requirement to maintain effectiveness of the registration statement will be extended for an amount of time equal to the time of suspension.

Stockholder Covenants. The stockholders must vote the shares subject to the options against any amendment or agreement that would impede, frustrate, prevent or nullify the stockholder option agreements. The stockholders are prohibited from selling, transferring, pledging or assigning the shares subject to the options, except to an accredited investor as defined in Rule 501 of Regulation D under the Securities Act, and from entering into any voting arrangement in relation to the shares subject to the options.

Under the terms of the letter agreement, WaveSmith agreed, subject to certain exceptions for pre-approved financing activities, not to issue capital stock until stockholders representing at least 80% of WaveSmith's outstanding capital stock, on an as-converted basis, have entered into stockholder option agreements with CIENA. Currently, WaveSmith stockholders who in the aggregate own 82.4% of WaveSmith's outstanding capital stock, on an as-converted basis, have entered into stockholder option agreements with CIENA.

The merger agreement provides that the letter agreement and the stockholder option agreements will terminate if:

the merger agreement is terminated by Wave Smith because:

the WaveSmith stockholders do not approve the merger and merger agreement and WaveSmith has not breached its obligations under the merger agreement;

there is a non-appealable court order enjoining the merger;

CIENA is in material breach of its obligations under the merger agreement and does not cure its breach after receiving written notice from WaveSmith;

the closing of the merger has not occurred by August 15, 2003 and CIENA does not extend financing to WaveSmith on the terms described above under "Terms of the Merger Agreement and Related Transactions - Termination of the Merger Agreement"; or

the merger has not closed by October 15, 2003 if the termination date has been extended by CIENA.

the merger agreement is terminated by CIENA other than because the WaveSmith board of directors has withdrawn or modified its recommendation in favor of the merger or recommended or entered into an acquisition proposal with someone other than CIENA; or

the merger agreement is terminated by WaveSmith or CIENA because termination of the Hart-Scott-Rodino Act waiting period has not occurred.

Stockholder Proposals

CIENA. All stockholder proposals intended to be presented at CIENA's 2004 Annual Meeting must be received by CIENA not later than September 28, 2003 and must otherwise comply with the rules of

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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 made in accordance with Rule 14a-8, stockholders intending to bring any business before an annual meeting of stockholders must deliver written notice thereof to CIENA's Secretary not less than 45 days prior to the anniversary of the date on which CIENA first mailed its proxy materials for its immediately preceding annual meeting of stockholders. The deadline for matters sought to be presented at the 2004 Annual Meeting is December 12, 2003. If a stockholder gives notice of such a proposal after the December 12, 2003 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 the Corporation's 2004 Annual Meeting.

WaveSmith. Pursuant to WaveSmith's by-laws, stockholders owning a majority in amount of WaveSmith's entire capital stock issued and outstanding and entitled to vote may call a special meeting of the stockholders by giving notice in writing to the WaveSmith board of directors. In the notice requesting a special meeting, the stockholders must specify the purpose or purposes of the proposed meeting. Business transacted at this special meeting shall be limited to the purpose or purposes stated in the relevant notice of the meeting.

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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 proxy statement/prospectus are the subject of opinions issued by Hogan & Hartson L.L.P., counsel to CIENA, and Testa, Hurwitz & Thibault, LLP, counsel to WaveSmith.

As of the date of this proxy statement/prospectus, Testa, Hurwitz & Thibault, LLP beneficially owns 114,000 shares of WaveSmith common stock under the name High Street Investors 2000.

Experts

The consolidated financial statements of CIENA Corporation as of October 31, 2002 and 2001 and for each of the three years in the period ended October 31, 2002 incorporated in this proxy statement/prospectus by reference to CIENA's Annual Report on Form 10-K for the year ended October 31, 2002 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 years in the three-year period ended December 31, 2001, have been incorporated by reference in this proxy statement/prospectus by reference to ONI Systems' Annual Report on Form 10-K for the year ended December 31, 2001 in reliance upon the report of KPMG LLP, independent accountants, incorporated by reference herein, and upon the authority of said firm as experts in auditing and accounting. CIENA has agreed to indemnify KPMG LLP against legal costs and expenses KPMG LLP may incur in connection with KPMG LLP's successful defense of any legal proceeding arising out of its consent to the incorporation by reference of the foregoing report in this proxy statement/ prospectus.

The financial statements of Cyras 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 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 proxy statement/prospectus, the WaveSmith board of directors knows of no matter that will be presented for consideration at the special meeting other than as described in this 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 WaveSmith.

WHERE YOU CAN FIND MORE INFORMATION

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

CIENA files 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, 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.

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

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

CIENA's annual report on Form 10-K for its fiscal year ended October 31, 2002, filed on December 12, 2002;

CIENA's quarterly report on Form 10-Q for the fiscal quarter ended January 31, 2003, filed on February 20, 2003;

CIENA's definitive proxy statement filed on January 27, 2003;

CIENA's current reports on Form 8-K filed on December 12 and December 20, 2002 and January 14 and January 23, 2003;

Item 7(a) of CIENA's current report on Form 8-K filed April 2, 2001;

ONI Systems Corp.'s annual report on Form 10-K for its fiscal year ended December 31, 2001, filed on March 19, 2002 (File No. 000-30633);

ONI Systems Corp.'s quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2002, filed on May 15, 2002 (File No. 000-30633);

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 proxy statement/prospectus and prior to the date of the special meeting are incorporated by reference into this 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. In the event of conflicting information in these documents, the information in the latest filed document should be considered correct.

You can obtain any of the documents incorporated by reference in this document through CIENA or from the SEC through the SEC's web site at the address described above. Documents incorporated by reference are available from CIENA without charge, excluding any exhibits to those documents unless the exhibit is specifically incorporated by reference as an exhibit in this proxy statement/prospectus. You can obtain documents incorporated by reference in this proxy statement/prospectus by requesting them in writing or by telephone from CIENA at the following address:

CIENA Corporation

1201 Winterson Road
Linthicum, Maryland 21090
Attn: General Counsel
Telephone (410) 865-8500

You can also contact CIENA at its website, www.ciena.com. If you would like to request documents, please do so by June 4, 2003 to receive them before the special meeting. If you request any incorporated

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documents from CIENA, it will mail them to you by first class mail, or another equally prompt means, within two business days after it receives your request.

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

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

BETWEEN

CIENA CORPORATION

AND

WAVESMITH NETWORKS, INC.

Dated as of April 9, 2003

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AGREEMENT AND PLAN OF MERGER

AGREEMENT AND PLAN OF MERGER (this Agreement) dated as of April 9, 2003 by and between **CIENA CORPORATION**, a Delaware corporation (CIENA) and **WAVESMITH NETWORKS, INC.**, 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, the Company is a Delaware corporation and has authorized 400,000,000 shares of common stock, par value \$0.01 per share (Company Common Stock), and 205,169,986 shares of preferred stock, \$0.01 par value per share (Company Preferred Stock), of which 9,200,000 shares have been designated Series A Preferred Stock (Series A Preferred Stock), 9,200,000 shares have been designated Series A-1 Preferred Stock (Series A-1 Preferred Stock), 38,064,993 shares have been designated Series B Preferred Stock (the Series B Preferred Stock), 38,064,993 shares have been designated Series B-1 Preferred Stock (the Series B-1 Preferred Stock) and 110,640,000 shares have been designated Series C Preferred Stock (Series C Preferred Stock) (the Series A and A-1 Preferred Stock, the Series B and B-1 Preferred Stock and the Series C Preferred Stock are referred to as the Company Preferred Stock, and the Company Preferred Stock and the Company Common Stock are referred to as the Company Capital Stock);

WHEREAS, in order to induce CIENA to enter into this Agreement, concurrently herewith certain stockholders of the Company are entering into stockholder agreements with CIENA in the form attached hereto as **Exhibit A**, pursuant to which, among other things, each such stockholder agrees to vote in favor of adoption of this Agreement and the Merger, and grants an option to CIENA to purchase such stockholder's Company Capital Stock upon the occurrence of certain events;

WHEREAS, on or prior to the date hereof, the Company has, by legally valid and sufficient action of its Board of Directors and stockholders, adopted an agreement and plan of merger dated the date hereof between the Company and its subsidiary under which the Initial Merger shall be effected prior to the Merger (the Initial Merger Agreement); and

WHEREAS, the parties intend that, for federal income tax purposes, (i) the Merger shall qualify as a reorganization within the meaning of Section 368(a) of the Code and (ii) this Agreement constitutes a plan of reorganization.

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:

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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 (as defined below) (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., as soon as possible, but in any event not later than two Business Days, after the date on which the last of the conditions set forth in **Article V** 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, restrictions, disabilities and duties of the Company shall become the debts, liabilities, obligations, restrictions, disabilities and duties of the Surviving Company.

SECTION 1.2. Certificate of Incorporation.

The Certificate of Incorporation of 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 bylaws of CIENA, as in effect immediately prior to the Effective Time, shall be the bylaws 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 be the Board of Directors and Officers of the Surviving Company, each to hold office until his or her respective successors are duly elected or appointed and qualified.

SECTION 1.5. Conversion of Securities.

At the Effective Time, by virtue of the Merger and without any action on the part of the Company or the holders of the Company's Capital Stock (the Stockholders):

(a) Each share of common stock of CIENA issued and outstanding 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 Capital Stock held in the treasury of the Company shall be canceled without any conversion thereof and no payment or distribution shall be made with respect thereto; and

(c) At the Effective Time, the then issued and outstanding shares of Company Capital Stock shall be converted into shares of CIENA common stock, par value \$0.01 per share (CIENA Common Stock or CIENA Stock), in accordance with this **Section 1.5(c)**. Subject to the provisions of **Sections 1.6** and **1.9**, each share of Company Capital Stock issued and outstanding immediately prior to the Effective Time

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(other than (i) shares canceled in accordance with **Section 1.5(b)** and (ii) Dissenting Shares (as defined below)) shall be converted into a fraction of a share of CIENA Common Stock including the corresponding fraction of a right (Right) to purchase shares of series A junior participating preferred stock, par value \$0.01 per share, pursuant to the Rights Agreement dated as of December 29, 1997 between CIENA and Equiserve Trust Company, N.A. (formerly BankBoston, N.A.) as Rights Agent, as amended on September 13, 1998 and October 19, 1998, determined as follows:

(i) initially each share of a particular series of Company Preferred Stock outstanding, if any, at the Effective Time shall receive in exchange therefor a portion of a share of CIENA Common Stock (the Preferred Stock Exchange Ratio) equal to:

$$\frac{\text{Preferred Liquidation Value}}{\text{Per Share Price}}$$

(ii) thereafter each share of Company Common Stock and Company Preferred Stock (treating the Company Preferred Stock as converted into Common Stock for purposes of this calculation only) outstanding at the Effective Time shall receive a portion of a share of CIENA Common Stock (the Common Stock Exchange Ratio) equal to:

$$\frac{\text{Aggregate Share Consideration} - \text{Preferred Share Liquidation Consideration}}{\text{Company Outstanding Shares} + \text{Common Stock Equivalents}}$$

, provided, however, that (x) the maximum number of shares that shall be issued by CIENA in the Merger, under Assumed Options and under any assumed warrants will not exceed the Aggregate Share Consideration, and (y) no holder of Company Preferred Stock shall receive any portion of the Aggregate Share Consideration that would cause such shares of Company Preferred Stock to receive a portion of the Aggregate Share Consideration having a value, based on the Per Share Price, in excess of the limitations set forth in Article FOURTH Section A(1)(g) of the Company Certificate (and any such excess shares shall be allocated among the remaining holders of Company Capital Stock as provided therein).

For purposes hereof, the following definitions apply:

Aggregate Share Consideration = 36,047,498 shares of CIENA Common Stock

Company Outstanding Shares = the total number of shares of Company Common Stock outstanding at the Effective Time including shares deemed issued in respect of common stock warrants expiring at the Effective Time.

Per Share Price = \$4.716

Preferred Liquidation Value = the liquidation preference attributable to each of the outstanding shares of a particular series of Company Preferred Stock pursuant to Article FOURTH Section (A)(1)(a) through (f) of the New Company Certificate, treating the Merger as a Liquidation for purposes thereof.

Preferred Share Liquidation Consideration = the total number of shares of CIENA Common Stock allocated at the Effective Time to holders of Company Preferred Stock under Section 1.5(c)(i) only.

Common Stock Equivalents = the number of shares of Company Common Stock issuable upon exercise of all Company Stock Options outstanding at the Effective Time (except for those which expire on or prior to the Effective Time or by their terms will expire following the Effective Time without becoming exercisable due to vesting provisions) plus the number that would be issuable upon

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conversion of all Company Preferred Stock outstanding, or issuable upon exercise of Company Preferred Warrants, on the date of determination.

All references in this Agreement to CIENA Common Stock to be received in accordance with the Merger shall be deemed to include the Rights. After the Effective Time, all shares of Company Capital Stock shall no longer be outstanding and shall automatically be canceled and retired, and each holder of a certificate representing any such shares shall cease to have any rights with respect thereto other than (i) the right to receive shares of CIENA Common Stock to be issued in consideration therefor upon the surrender of such certificate, (ii) any dividends and other distributions in accordance with **Section 1.8(c)** and (iii) any cash, without interest, to be paid in lieu of any fractional share of CIENA Common Stock in accordance with **Section 1.9**.

SECTION 1.6. Adjustment of the Exchange Ratios.

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 Ratios, and thereafter all references to the Exchange Ratios shall be deemed to be to such Exchange Ratios as so adjusted.

SECTION 1.7. Dissenting Shares.

(a) Notwithstanding any provision of this Agreement to the contrary, shares of Company Capital Stock that are outstanding immediately prior to the Effective Time and which are held by stockholders who shall not have voted in favor of the Merger or consented thereto in writing and who shall have demanded properly in writing appraisal for such shares in accordance with Section 262 of the DGCL (collectively, the Dissenting Shares) shall not be converted into or represent the right to receive the consideration set forth in **Section 1.5**. Such stockholders shall be entitled to receive such consideration as is determined to be due with respect to such Dissenting Shares in accordance with the provisions of Section 262, except that all Dissenting Shares held by stockholders who shall have failed to perfect or who effectively shall have withdrawn or lost their rights to appraisal of such shares under Section 262 shall thereupon be deemed to have been converted into and to have become exchangeable for, as of the Effective Time, the right to receive the shares of CIENA Common Stock specified in **Section 1.5**, without any interest thereon, upon surrender, in the manner provided in **Section 1.8**, of the certificate or certificates that formerly evidenced by such Dissenting Shares less the number of shares of CIENA Common Stock allocable to such stockholder that have been deposited in the Escrow Fund and the Reimbursement Fund in respect of Company Capital Stock pursuant to **Sections 1.8(b)** and **6.2**.

(b) The Company shall give CIENA (i) prompt notice of any demands for appraisal received by the Company, withdrawals of such demands, and any other instruments served pursuant to the DGCL and received by the Company and (ii) the opportunity to direct all negotiations and proceedings with respect to demands for appraisal under the DGCL. The Company shall not, except with the prior written consent of CIENA, make any payment with respect to any demands for appraisal or offer to settle or settle any such demands.

SECTION 1.8. Exchange Procedures; Distributions with Respect to Unexchanged Shares; Stock Transfer Books.

(a) As of the Effective Time, CIENA shall deposit with the Exchange Agent for the benefit of the holders of shares of Company Capital Stock, certificates representing shares of the CIENA Common Stock to be issued pursuant to **Section 1.5(c)** in exchange for the shares of Company Capital Stock less the Escrow Amount and the Reimbursement Amount (each as defined in **Section 1.8(b)**), together with cash in an amount sufficient to permit the payment of cash in lieu of fractional shares pursuant to

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Section 1.9. (Such shares of CIENA Common Stock, together with any dividends or distributions with respect thereto pursuant to **Sections 1.8(c)** and **1.9**, are referred to herein as the Exchange Fund).

(b) As soon as practicable, but in any event within five Business Days, after the Effective Time, CIENA shall cause the Exchange Agent to send to each Person who was, at the Effective Time, a holder of record of certificates which represented outstanding Company Capital Stock (the Certificates) which shares were converted into the right to receive CIENA Common Stock pursuant to **Section 1.5**, a letter of transmittal which (i) shall specify that delivery shall be effected and risk of loss and title to such Certificates shall pass, only upon actual delivery thereof to the Exchange Agent and (ii) shall contain instructions for use in effecting the surrender of the Certificates. Upon surrender to the Exchange Agent of Certificates for cancellation, together with such letter of transmittal duly executed, such holder shall be entitled to receive in exchange therefor within five Business Days (A) a certificate representing the number of whole shares of CIENA Common Stock into which the Company Capital Stock represented by the surrendered Certificate shall have been converted at the Effective Time (less such holder's pro rata portion of the number of shares of CIENA Common Sto