

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM S-8

**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)

23-2725311

(I.R.S. Employer Identification No.)

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

(Address, including zip code, and telephone number,
including area code, of registrant's principal executive offices)

Third Amended and Restated Ciena Corporation 1994 Stock Option Plan
(Full title of the Plan)

Russell B. Stevenson, Jr.
Senior Vice President, General Counsel and Secretary
Ciena Corporation
1201 Winterson Road
Linthicum, Maryland 21090
(410) 865-8500

(Name, address and telephone number, including area code, of agent for service)

Copy to:
Michael J. Silver
Amy Bowerman Freed
Hogan & Hartson L.L.P.
111 South Calvert Street
Baltimore, Maryland 21202
(410) 659-2700

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered	Proposed maximum offering price per share(1)	Proposed maximum aggregate offering price(1)	Amount of registration fee(1)
Common Stock, \$0.01 par value per share(2)	9,993,186	\$2.45	\$24,483,306	\$3,103

- (1) Estimated pursuant to Rule 457(c) and (h) of the Securities Act of 1933, as amended, solely for the purpose of calculating the amount of the registration fee, based on the average of the high and low prices per share of Ciena Corporation Common Stock, par value \$.01 per share, on December 6, 2004, as reported on the NASDAQ National Market. Pursuant to Rule 416(c) under the Securities Act of 1933, this Registration Statement also covers an indeterminate number of shares to be offered or sold pursuant to the Plan and agreements described herein that may be issued as a result of the antidilution and other adjustment provisions therein.
 - (2) Includes Series A Junior Participating Preferred Share Purchase Rights attached thereto, for which no separate fee is payable pursuant to Rule 457(i).
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EXPLANATORY NOTE

This Registration Statement is being filed to register an aggregate of 9,993,186 additional shares of common stock authorized for issuance under Registrant's Third Amended and Restated Ciena Corporation 1994 Stock Option Plan (the "1994 Plan"). Under the terms of the 1994 Plan, the number of shares of common stock authorized for issuance thereunder automatically increased by 0.75% of the total number of issued and outstanding shares of the common stock of Registrant upon the last day of Registrant's fiscal year for the fiscal years 2001 to 2004. As a result, the number of shares available under the 1994 Plan increased by (i) 2,460,176 shares on October 31, 2001; (ii) 3,245,585 shares on October 31, 2002; (iii) 3,549,111 shares on October 31, 2003; and (iv) 4,287,425 shares on October 31, 2004. Registrant previously registered 3,245,585 shares of common stock authorized for issuance under the 1994 Plan at October 31, 2002 (Registration No. 333-102462). This Registration Statement is being filed to register the 9,993,186 additional shares automatically added to the number of shares authorized under the 1994 Plan at October 31, 2001, 2003 and 2004. As of October 31, 2004, the total number of shares currently authorized for issuance under the 1994 Plan was 59,642,297.

INCORPORATION BY REFERENCE

In accordance with Section E of the General Instructions to Form S-8, the contents of the Registrant's Registration Statements on Form S-8 (File Nos. 333-72474 and 333-102462) are incorporated herein by reference, in connection with the registration of the additional 9,993,186 shares of common stock authorized for issuance under Third Amended and Restated Ciena Corporation 1994 Stock Option Plan.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The documents containing the information specified in Part I will be sent or given to employees as specified by Rule 428(b)(1) of the Securities Act of 1933 (the "Securities Act"). In accordance with the instructions to Part I of Form S-8, such documents will not be filed with the Securities and Exchange Commission (the "Commission"). These documents and the documents incorporated by reference pursuant to Item 3 of Part II of this registration statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this registration statement the following documents filed by it with the Commission:

- (a) The Registrant's Form 10-K for the fiscal year ended October 31, 2004 filed with the Commission on December 9, 2004;
- (b) All reports filed with the Commission pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), since October 31, 2004; and
- (c) The description of the Registrant's Common Stock, \$.01 par value per share ("Common Stock"), contained in the Registrant's Registration Statement on Form 8-A filed with the Commission on January 13, 1997, including all amendments and reports filed under Section 13(a) or 15(d) of the Exchange Act for purposes of updating the description of Common Stock.

In addition, all documents and reports filed by the Registrant subsequent to the date hereof pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this registration statement which indicates that all securities offered have been sold or which deregisters all securities remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of filing of such documents or reports. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein or in any other subsequent filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Item 4. Description of Securities.

Not applicable (the Common Stock is registered under Section 12(g) of the Exchange Act).

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Under Section 145 of the Delaware General Corporation Law (“DGCL”), a corporation may indemnify its directors, officers, employees and agents and its former directors, officers, employees and agents and those who serve, at the corporation’s request, in such capacities with another enterprise, against expenses (including attorneys’ fees), as well as judgments, fines and settlements in nonderivative lawsuits, actually and reasonably incurred in connection with the defense of any action, suit or proceeding in which they or any of them were or are made parties or are threatened to be made parties by reason of their serving or having served in such capacity. The DGCL provides, however, that such person must have acted in good faith and in a manner such person reasonably believed to be in (or not opposed to) the best interests of the corporation and, in the case of a criminal action, such person must have had no reasonable cause to believe his or her conduct was unlawful. In addition, the DGCL does not permit indemnification in an action or suit by or in the right of the corporation, where such person has been adjudged liable to the corporation, unless, and only to the extent that, a court determines that such person fairly and reasonably is entitled to indemnity for costs the court deems proper in light of liability adjudication. Indemnity is mandatory to the extent a claim, issue or matter has been successfully defended.

The Third Restated Certificate of Incorporation of Ciena (the “Ciena Certificate”) contains provisions that provide that no director of Ciena shall be liable for breach of fiduciary duty as a director, except for: (1) any breach of the directors’ duty of loyalty to Ciena or its stockholders; (2) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law; (3) liability under Section 174 of the DGCL; or (4) any transaction from which the director derived an improper personal benefit. The Ciena Certificate contains provisions that further provide for the indemnification of directors and officers to the fullest extent permitted by the DGCL. Under the bylaws of Ciena, Ciena is required to advance expenses incurred by an officer or director in defending any such action if the director or officer undertakes to repay such amount if it is determined that the director or officer is not entitled to indemnification. In addition, Ciena has entered into indemnity agreements with each of its directors pursuant to which Ciena has agreed to indemnify the directors as permitted by the DGCL. Ciena has obtained directors and officers liability insurance against certain liabilities, including liabilities under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Description
4.1 (1)	Specimen Stock Certificate
4.2 (2)	Rights Agreement dated December 29, 1997
4.3 (3)	Amendment to Rights Agreement dated June 2, 1998
4.4 (4)	Amendment No. 2 to Rights Agreement dated September 13, 1998
4.5 (5)	Amendment No. 3 to Rights Agreement dated October 14, 1998
5.1	Opinion of Russell B. Stevenson, Jr., Senior Vice President, General Counsel and Secretary of Ciena Corporation (filed herewith)
23.1	Consent of Russell B. Stevenson, Jr., Senior Vice President, General Counsel and Secretary of Ciena Corporation (contained in Exhibit 5.1)
23.2	Consent of PricewaterhouseCoopers LLP (filed herewith)
24.1	Power of Attorney (included on signature page)

(1) Incorporated by reference from the Registrant's Registration Statement on Form S-1 (No. 333-17729).

(2) Incorporated by reference from the Registrant's Form 8-K filed on December 29, 1997.

(3) Incorporated by reference from the Registrant's Form 8-K filed on June 3, 1998.

(4) Incorporated by reference from the Registrant's Form 8-K filed September 14, 1998.

(5) Incorporated by reference from the Registrant's Form 8-K filed October 19, 1998.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective amendment by those

paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, Ciena Corporation has duly caused this Registration Statement on Form S-8 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Linthicum, Maryland, on this 9th day of December, 2004.

Ciena Corporation

/s/ Gary B. Smith

Gary B. Smith
President, Chief Executive Officer And Director

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Gary B. Smith, Joseph R. Chinnici and Russell B. Stevenson, Jr., and each of them, his or her true and lawful attorney-in-fact and agents, with full power of substitution and resubstitution, from such person and in each person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to the Registration Statement, any Registration Statement relating to this Registration Statement under Rule 462 and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, full power and authority to do and perform each and every act and thing requisite and necessary to be done as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of Securities Act of 1933, as amended, this Registration Statement on Form S-8 has been signed by the following persons in the capacities and on the date indicated.

December 9, 2004

/s/ Patrick H. Nettles, Ph.D.

Patrick H. Nettles, Ph.D.
Executive Chairman of the
Board of Directors

December 9, 2004

/s/ Gary B. Smith

Gary B. Smith
President, Chief Executive Officer
and Director
(Principal Executive Officer)

December 9, 2004

/s/ Joseph R. Chinnici

Joseph R. Chinnici
Sr. Vice President, Finance and Chief
Financial Officer
(Principal Financial Officer)

December 9, 2004

/s/ Andrew C. Petrik

Andrew C. Petrik
Vice President, Controller and Treasurer
(Principal Accounting Officer)

December 9, 2004

/s/ Stephen P. Bradley

Stephen P. Bradley
Director

December 9, 2004

/s/ Harvey B. Cash

Harvey B. Cash
Director

December 9, 2004

/s/ Don H. Davis, Jr.

Don H. Davis, Jr.
Director

December , 2004

John R. Dillon
Director

December 9, 2004

/s/ Lawton W. Fitt

Lawton W. Fitt
Director

December 9, 2004

/s/ Judith M. O'Brien

Judith M. O'Brien
Director

December 9, 2004

/s/ Michael J. Rowny

Michael J. Rowny
Director

December 9, 2004

/s/ Gerald H. Taylor

Gerald H. Taylor
Director

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[Ciena Corporation Letterhead]

December 9, 2004

Board of Directors
Ciena Corporation
1201 Winterson Road
Linthicum, Maryland 21090

Ladies and Gentlemen:

This opinion letter is furnished to you to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the registration statement on Form S-8 (the "Registration Statement") filed with the Securities and Exchange Commission relating to the registration of up to 9,993,186 shares of the Company's common stock, par value \$0.01 per share (the "Shares"), issuable under the Third Amended and Restated Ciena Corporation 1994 Stock Option Plan (the "Plan"). For purposes of this opinion letter, I have examined such records, documents and proceedings as I have deemed relevant and necessary as a basis for the opinion expressed herein.

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. I express no opinion herein as to any other laws, statutes, ordinances, rules, or regulations. As used herein, the term "Delaware General Corporation Law, as amended" includes the statutory provisions contained therein, all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting these laws.

Based upon, subject to and limited by the foregoing, I am of the opinion that when issued in accordance with the terms of the Plan and the option agreements issued under the Plan, the Shares will be validly issued, fully paid, and nonassessable.

This opinion letter has been prepared for your use in connection with the Registration Statement. I hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement. In giving this consent, I do not thereby admit that I am an "expert" within the meaning of the Securities Act of 1933, as amended.

Very truly yours,

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

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated December 9, 2004 relating to the financial statements of Ciena Corporation, which appears in Ciena Corporation's Annual Report on Form 10-K for the year ended October 31, 2004.

/s/ PricewaterhouseCoopers LLP
McLean, VA
December 9, 2004