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SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED OCTOBER 31, 1998
COMMISSION FILE NUMBER: 0-21969

CIENA CORPORATION

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE
(STATE OR OTHER JURISDICTION OF
INCORPORATION OR ORGANIZATION)

23-2725311
(IRS EMPLOYER
IDENTIFICATION NO.)

1201 WINTERSON ROAD
LINTHICUM, MARYLAND 21090
(410) 865-8500
(ADDRESS AND TELEPHONE NUMBER OF PRINCIPAL EXECUTIVE OFFICES)

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:
NONE

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:
COMMON STOCK, \$.01 PAR VALUE
TITLE OF CLASS

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a) The following documents are filed as a part of this Form:

1. Financial Statement Schedules:

All schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

2. Exhibits: See Index to Exhibits on page 4 of this Amendment. The Exhibits listed in the accompanying Index to Exhibits are filed or incorporated by reference as part of this report.

(b) Reports on Form 8-K

No amendment is being made to this item.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

CIENA CORPORATION

Date: April 5, 1999

By: /s/ Andrew C. Petrik

Andrew C. Petrik
Vice President, Controller and Treasurer

INDEX TO EXHIBITS

Exhibit Number -----	Description -----
3.1*	Certificate of Amendment to Third Restated Certificate of Incorporation
3.2*	Third Restated Certificate of Incorporation
3.3*	Amended and Restated Bylaws
4.1*	Specimen Stock Certificate
4.2***	Rights Agreement dated December 29, 1997
4.3***	Amendment to Rights Agreement
10.1*	Form of Indemnification Agreement for Directors and Officers
10.2*	Amended and Restated 1994 Stock Option Plan
10.3*	Form of Employee Stock Option Agreements
10.4*	1996 Outside Directors Stock Option Plan
10.5*	Forms of 1996 Outside Directors Stock Option Agreement
10.7*	Lease Agreement dated October 5, 1995 between the Company and CS Corridor-32 Limited Partnership
10.6*	Series C Preferred Stock Purchase Agreement dated December 20, 1995
10.8+*	Purchase Agreement Between Sprint/United Management Company and the Company dated December 14, 1995
10.9+*	Basic Purchase Agreement between WorldCom Network Services, Inc. and the Company dated September 19, 1996
10.10*	Settlement Agreement and Mutual Release, between the Company and William K. Woodruff & Company, dated August 26, 1996
10.13*	Employment Agreement dated April 9, 1994 between the Company and Patrick Nettles
10.14*	Lease Agreement dated November 1, 1996 by and between the Company and Aetna Life Insurance Company
10.15*	Revolving Note and Business Loan Agreement dated November 25, 1996 between the Company and Mercantile-Safe Deposit & Trust Company
10.16+*	First Addendum to Procurement Agreement between the Registrant and Sprint/United Management Company dated December 19, 1996

10.17++ Third Addendum to Procurement Agreement between the
Registrant and Sprint/United Management Company
(filed herewith)
10.18***** Form of Transfer of Control/Severance Agreement
21** Subsidiaries of registrant
23.1***** Consent of Independent Accountants
27***** Financial Data Schedule

- * Incorporated by reference from the Company's Registration Statement on Form S-1 (333-17729).
- ** Incorporated by reference from the Company's Registration Statement on Form S-1 (333-28525).
- *** Incorporated by reference from the Company's Form 8-K dated December 29, 1997.
- **** Incorporated by reference from the Company's Form 8-K dated October 14, 1998.
- ***** Previously filed with the Annual Report on Form 10-K.
- + Confidential treatment has been granted by the Securities and Exchange Commission with respect to certain portions of these exhibits.
- ++ Confidential treatment has been requested with respect to certain portions of this exhibit.

The confidential portions have been filed separately with the Securities and Exchange Commission.

THIRD ADDENDUM TO PROCUREMENT AGREEMENT
BETWEEN
SPRINT/UNITED MANAGEMENT COMPANY
AND
CIENA CORPORATION

This Third Addendum to Procurement Agreement (the "Addendum") is executed this 21st day of October 1998 and is effective as of the 9th day of October 1998 (the "Effective Date"), by and between Sprint/United Management Company, a Kansas corporation, having its principal place of business at 2330 Shawnee Mission Parkway, Westwood, Kansas 66205 (hereinafter referred to as "Sprint") and CIENA Corporation, a Delaware corporation, having its principal place of business at 1201 Winterson Road, Linthicum, Maryland 21090 (hereinafter referred to as "CIENA"), as an addendum to that certain Procurement Agreement KC103251ML dated December 14, 1995, between Sprint and CIENA (the "Agreement"). Except as otherwise indicated, defined terms in this Addendum have the same meaning as in the Agreement, as amended through the Second Addendum.

A. BACKGROUND

1. Pursuant to the Agreement, Sprint has been purchasing and CIENA has been supplying Deliverables.
2. Sprint and CIENA implemented a special purchasing arrangement in November 1996 for purchases in 1997, which arrangement was memorialized by that certain First Addendum to Procurement Agreement between Sprint/United Management Company and CIENA Corporation dated November 7, 1996 (the "First Addendum"). The parties implemented a special purchasing arrangement in March 1998 for purchases in 1998, which arrangement was memorialized by that certain Second Addendum to Procurement Agreement between Sprint/United Management Company and CIENA Corporation dated March 10, 1998 (the "Second Addendum"). The Procurement Agreement, First Addendum and Second Addendum shall constitute the "Agreement".) The parties now desire to implement this Third Addendum.
3. Sprint contemplates purchasing new Deliverables (Addendum Deliverables as defined below) from CIENA *.
4. Except as amended by this Third Addendum, the Agreement shall remain in full force and effect.

Now, therefore, in consideration of the foregoing premises, the parties agree as follows:

B. ADDENDUM

DEFINITIONS.

1.1 "Addendum Deliverables" means Deliverables ordered during the Addendum Term and the training services specified herein. Addendum Deliverables shall not include orders for installation services, emergency technical and support services.

1.2 "Addendum Term" means the period from October 9, 1998 through December 31, 1999. "Addendum Deliverables Schedule" means that written document representing the Sprint forecasted

* The asterisk denotes that confidential portions of this exhibit have been omitted in reliance on Rule 24b-2 of the Securities Exchange Act of 1934. The confidential portions have been submitted separately to the Securities and Exchange Commission.

quantities and delivery dates of Deliverables throughout the Addendum Term. The Deliverables Schedule is incorporated by reference into this Addendum as Exhibit F.

1.3 "Addendum Deliverables Schedule" means *.

1.4 "Preferred Provider" means *.

2. PREFERRED PROVIDER.

Sprint designates CIENA as its Preferred Provider during the Addendum Term.

3. PRICES, QUANTITIES AND DELIVERY SCHEDULES.

(a) Section 2.1 of the 1998 Agreement is deleted in its entirety and replaced with the following:

(1) During the Addendum Term, Sprint shall furnish Supplier a monthly Projection Schedule ("Schedule") setting forth a rolling twelve (12) month forecast of the respective quantities of each type of Addendum Deliverable that Sprint then estimates it will require for each month in the immediately succeeding twelve (12) month period. Sprint and CIENA shall meet on a monthly basis to review Sprint's issuance of Purchase Orders for the Addendum Deliverables, and CIENA's deliveries of same, each in relation to the Addendum Deliverables Schedule.

(2) The Addendum Deliverables Schedule, which is set forth and incorporated as Exhibit F, is Sprint's *. Except as specifically provided in Section 4(a) below, CIENA acknowledges that such forecast is not a commitment and may change from time to time.

(b) Section 3.1, Exhibit "C" pricing in the 1998 Agreement is deleted in its entirety and replaced with the new Exhibit C "New Pricing", which is set forth and incorporated herein by reference, *.

(c) Section 13.10 in the 1998 Agreement and the related portions of Exhibit C thereto * are hereby deleted and replaced by Exhibit D attached hereto, which refers to Supplier's 96 channel system.

(d) CIENA will provide Sprint, *.

4. ADDITIONAL COMMITMENTS OF THE PARTIES.

(a) Sprint shall order *. Any unfilled purchase orders issued prior to execution of this Addendum as identified below will be priced *.

*

(b) * training services during the Addendum Term; provided, however, that Sprint shall pay or reimburse CIENA for travel, meals and lodging expenses for CIENA employees performing training services for Sprint during the Addendum Term at a location other than CIENA's training headquarters in Linthicum, Maryland.

(c) *.

* The asterisk denotes that confidential portions of this exhibit have been omitted in reliance on Rule 24b-2 of the Securities Exchange Act of 1934. The confidential portions have been submitted separately to the Securities and Exchange Commission.

- (d) In the event of force majeure affecting CIENA's manufacturing capacity or delivery capability, Sprint shall thereupon have the first priority on CIENA's manufacturing output for so long as necessary to fill Sprint's orders which were pending at the time of the force majeure or otherwise scheduled in accordance with the Addendum Deliverables Schedule. *.
- (e) CIENA's plan for readying Addendum Deliverables for use on dispersion shifted fiber ("DSF") shall be as set forth in Exhibit E.
- (f) The parties agree to make a joint press release in a form mutually agreed upon execution of this Addendum.
- (g) Any successors or assignees of Sprint or CIENA must honor all the terms and conditions of the Agreement and this third Addendum.

5. GENERAL

Except as amended by this Third Addendum, the 1998 Agreement shall remain in full force and effect. In the event of a conflict between the terms of the 1998 Agreement and this Third Addendum, this Third Addendum will control.

This Third Addendum is executed by authorized representatives of Sprint and CIENA and is made a part of and incorporates the terms and conditions of the 1998 Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Third Addendum to be executed by their duly authorized representatives as of the day and year below written.

CIENA CORPORATION

SPRINT/UNITED MANAGEMENT COMPANY

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

* The asterisk denotes that confidential portions of this exhibit have been omitted in reliance on Rule 24b-2 of the Securities Exchange Act of 1934. The confidential portions have been submitted separately to the Securities and Exchange Commission.

Attachments:

- Exhibit F - Addendum Deliverables Schedule
- Exhibit C - Pricing *
- Exhibit D - MW 9600 *
- Exhibit E - CIENA Plan *

X

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X This "X" denotes that the remaining 19 pages of this exhibit have been omitted in reliance on Rule 24b-2 of the Securities Exchange Act of 1934. The confidential portions have been submitted separately to the Securities and Exchange Commission.

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