FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPRO | VAL |
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| OMB Number: | 3235-0287 |
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| | Check this box if no longer subject to |
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| ٦ | Section 16. Form 4 or Form 5 |
|) | obligations may continue. See |
| | Instruction 1(b). |

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| | | | | | | | | | | | ' ' | | | | | | | | | | | |
|---|---|--|---|---------|-------|--|--|--|------------------|---|---------------------|---|---|----------------------|--|---|--|---|---|--|--|--|
| 1. Name and Address of Reporting Person* Aguino Michael Gerald | | | | | | | 2. Issuer Name and Ticker or Trading Symbol CIENA CORP [CIEN] | | | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner | | | | | | |
| (Last) | (Fii | | 3. Date of Earliest Transaction (Month/Day/Year) 12/14/2010 | | | | | | | | | | Office | er (give title v) | 10% Owner Other (specify below) Field Operations | | | | | | | |
| (Street) LINTHICUM MD 21090 (City) (State) (Zip) | | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | . Indivicine) | dual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | | |
| | | Tabl | e I - Noi | n-Deriv | ative | Se | curitie | es Ac | quired | , Dis | posed o | f, or | Bene | eficia | ally O | wne | ed | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Da | | | | | | ay/Year) if any | | A. Deemed execution Date, any Month/Day/Year) | | Transaction Disposed Code (Instr. 5) | | ities Acquired (A) d Of (D) (Instr. 3, 4 | | | nd S | 5. Amount of Securities Beneficially Owned Following | | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership | | |
| | | | | | Code | v | Amount | | A) or D) | Price | , т | ransa | ported ansaction(s) str. 3 and 4) | | | (Instr. 4) | | | | | | |
| Common Stock 12/14/ | | | | | | | 2010 | | A ⁽¹⁾ | | 50,820 | | Α | \$19 | 9.1 | 210,713 | | | D | | | |
| Common | Stock | 1/2010 | 2010 | | | A ⁽²⁾ | | 12,700 | | Α | \$19.1 | | 223,413(3) | | | D | | | | | | |
| | | Та | | | | | | | | | sed of, onvertib | | | | y Ow | ned | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution I if any (Month/Day | Date, | | Transaction Code (Instr. | | | | 6. Date Exercisable at Expiration Date (Month/Day/Year) | | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) | | | ivative urity tr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction((Instr. 4) | O Fe D OI (I) | D. wnership orm: irect (D) r Indirect) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | Code | v | (A) | (D) | Date Exercisa | | Expiration Date | Title | Amo or Nun of Sha | | | | | | | | | |

Explanation of Responses:

- 1. Reflects Restricted Stock Units (RSUs) that vest over four years, with one-sixteenth of the grant amount vesting on March 20, June 20, September 20, and December 20 of each year, commencing on March 20, 2011.
- 2. Reflects Performance Stock Units (PSUs) for which the vesting is subject to the achievement of certain performance goals and an additional service period. Based upon the timing of achievement of the performance goals, the target amounts reported may increase by as much as an additional 70% of the grant amount reported above.
- 3. Shares reported include unvested Restricted Stock Units (RSUs).

Remarks:

By: Erik J. Lichter For: Michael G. Aquino

12/16/2010

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.