
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Under the Securities Exchange Act of 1934

SCHEDULE 13G

AMENDMENT

INFORMATION STATEMENT PURSUANT TO RULES 13d-1 AND 13d-2
UNDER THE SECURITIES EXCHANGE ACT OF 1934

Network-1 Security Solutions, Inc.

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

64121N-10-9

(CUSIP Number)

June 1, 2010

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

SCHEDULE 13G

CUSIP No. 64121N-10-9

1) **NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON**

Steven D. Heinemann

2) **CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP**

(a)

(b)

3) **SEC USE ONLY**

4) **CITIZENSHIP OR PLACE OF ORGANIZATION**

United States

**NUMBER
OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH**

5) **SOLE VOTING POWER**

2,665,052

6) **SHARED VOTING POWER**

0

7) **SOLE DISPOSITIVE POWER**

2,665,052

8) **SHARED DISPOSITIVE POWER**

0

9) **AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON**

2,665,052

10) **CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES**

11) **PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)**

11.0%

12) **TYPE OF REPORTING PERSON**

IN

Schedule 13G

Item 1(a). Name of Issuer:

Network-1 Security Solutions, Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:

445 Park Avenue, Suite 1028
New York, New York 10022

Item 2(a). Name of Person Filing:

Steven D. Heinemann

Item 2(b). Address of Principal Business Office or, if None, Residence:

c/o First New York Securities L.L.C.
90 Park Avenue 5th Floor
New York, NY 10016

Item 2(c). Citizenship:

United States

Item 2(d). Title of Class of Securities:

Common Stock, par value \$.01 per share

Item 2(e). CUSIP Number:

64121N-10-9

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) Broker or Dealer Registered Under Section 15 of the Act (15 U.S.C. 78o)
 - (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c)
 - (c) Insurance Company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c)
 - (d) Investment Company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8)
 - (e) Investment Adviser in accordance with § 240.13d-1(b)(1)(ii)(E)
 - (f) Employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F)
 - (g) Parent Holding Company or control person in accordance with §240.13d-1(b)(ii)(G)
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- (h) Savings Association as defined in §3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813)
- (i) Church plan that is excluded from the definition of an investment company under §3(c)(15) of the Investment Company Act of 1940 (15 U.S.C. 80a-3)
- (j) Group, in accordance with §240.13d-1(b)(ii)(J)

Item 4. Ownership.

- (a) Amount beneficially owned: 2,665,052¹
- (b) Percent of class²: 11.0%
- (c) Number of shares as to which such person has:
 - (i) Sole power to vote or to direct the vote: 2,665,052
 - (ii) Shared power to vote or to direct the vote: 0
 - (iii) Sole power to dispose or to direct the disposition of: 2,665,052
 - (iv) Shared power to dispose or to direct the disposition of: 0

Item 5. Ownership of Five Percent or Less of a Class.

Not Applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not Applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.

Not Applicable.

Item 8. Identification and Classification of Members of the Group.

Not Applicable.

Item 9. Notice of Dissolution of Group.

Not Applicable.

¹ Includes 66,667 shares which are issuable upon exercise of warrants.

² Percentages are based on 24,135,557 shares of Common Stock outstanding (as set forth in the Issuer's Form 10-Q filed on May 14, 2010).

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best knowledge and belief of the undersigned, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Date: June 2, 2010

/s/ Steven D. Heinemann
Steven D. Heinemann
