

NETWORK-1 SECURITY SOLUTIONS, INC.

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-14370

PROSPECTUS SUPPLEMENT NO. 5 (To Prospectus dated April 10, 2012)

This is a prospectus supplement to our prospectus dated April 10, 2012 (the "Prospectus") relating to the resale from time to time by selling stockholders of up to 5,904,897 shares of our common stock, including shares issuable upon exercise of outstanding warrants and options. On September 7, 2012, we filed with the Securities and Exchange Commission Amendment No. 1 to our Quarterly Report on Form 10-Q for the period ended June 30, 2012. The text of the Quarterly Report on Form 10-Q is attached to and a part of this supplement.

This prospectus supplement should be read in conjunction with the Prospectus and may not be delivered or utilized without the Prospectus. This prospectus supplement is qualified by reference to the Prospectus, except to the extent that the information provided by this prospectus supplement supersedes the information contained in the Prospectus.

The securities offered by the Prospectus involve a high degree of risk. You should carefully consider the "Risk Factors" referenced on pages 6-16 of the Prospectus in determining whether to purchase the common stock.

The date of this prospectus supplement is September 7, 2012.

U.S. SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q/A

Amendment No. 1

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

For the quarterly period ended June 30, 2012

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

For the transition period from _____ to _____

Commission File Number 1-15288

NETWORK-1 SECURITY SOLUTIONS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or other jurisdiction of incorporation or organization)

11-3027591

(IRS Employer Identification No.)

445 Park Avenue, Suite 1020
New York, New York

(Address of principal executive offices)

10022

(zip code)

212-829-5770

(Registrant's Telephone Number)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§223.405) of this chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "Large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer
(Do not check if a smaller reporting company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The number of shares of Common Stock, \$.01 par value per share, outstanding as of August 14, 2012 was 25,963,094.

NETWORK-1 SECURITY SOLUTIONS, INC.

EXPLANATORY NOTE

The sole purpose of this Amendment No. 1 to the Quarterly Report on Form 10-Q (the "Form 10-Q") of Network-1 Security Solutions, Inc. for the period ended June 30, 2012 is to furnish Exhibit 101 to the Form 10-Q in accordance with Rule 405 of Regulation S-T. Exhibit 101 to the Form 10-Q provides the financial statements and related notes from the Form 10-Q formatted in XBRL (eXtensible Business Reporting Language).

No other changes have been made to the Form 10-Q. This Amendment No. 1 to the Form 10-Q speaks as of the original filing date of the Form 10-Q, does not reflect events that may have occurred subsequent to the original filing date, and does not modify or update in any way disclosures made in the Form 10-Q.

Pursuant to Rule 406T of Regulation S-T, the interactive data files on Exhibit 101 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

Exhibit Index

Exhibit Number	Description
31.1	Controls and Procedure Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (1)
31.2	Controls and Procedure Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (1)
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (1)
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (1)
101.INS	XBRL Instance Document*
101.SCH	XBRL Schema Document*
101.CAL	XBRL Calculation Linkbase Document*
101.DEF	XBRL Definition Linkbase Document*
101.LAB	XBRL Label Linkbase Document*
101.PRE	XBRL Presentation Linkbase Document*

(1) Included as an exhibit to the registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2012, filed with the Securities and Exchange Commission on August 14, 2012.

* Furnished herewith. Pursuant to Rule 406T of Regulation S-T, the Interactive Data Files on Exhibit 101 hereto are deemed not filed or part of any registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, are deemed not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, and otherwise are not subject to liability under those sections.

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.

**NETWORK-1 SECURITY SOLUTIONS,
INC.**

Date: September 7, 2012

By: /s/ Corey M. Horowitz
Corey M. Horowitz
Chairman and Chief Executive Officer

Date: September 7, 2012

By: /s/ David C. Kahn
David C. Kahn
Chief Financial Officer