

NETWORK-1 SECURITY SOLUTIONS, INC.

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-126013

PROSPECTUS SUPPLEMENT NO. 5
(To Prospectus dated December 22, 2005)

This is a prospectus supplement to our prospectus dated December 22, 2005 (the "Prospectus") relating to the resale from time to time by selling stockholders of up to 16,886,267 shares of our Common Stock, including shares issuable upon exercise of outstanding warrants and options. On March 31, 2006, we filed with the Securities and Exchange Commission a Form 12b-25. The text of the Form 12b-25 is attached to and a part of this supplement.

This prospectus supplement should be read in conjunction with the Prospectus and the prior prospectus supplements, and may not be delivered or utilized without the Prospectus and the prior prospectus supplements. 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 page 7 of the Prospectus in determining whether to purchase the Common Stock.

The date of this prospectus supplement is March 31, 2006.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 12b-25

Commission File Number 1-14896

NOTIFICATION OF LATE FILING

(Check One): ☒ Form 10-K ☐ Form 11-K ☐ Form 20-F ☐ Form 10-Q
☐ Form N-SAR

For Period Ended: December 31, 2005

- ☐ Transition Report on Form 10-K
☐ Transition Report on Form 20-F
☐ Transition Report on Form 11-K
☐ Transition Report on Form 10-Q
☐ Transition Report on Form N-SAR

For the Transition Period Ended: _____

Read attached instruction sheet before preparing form. Please print or type.

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the item(s) to which the notification relates: _____

PART I
REGISTRANT INFORMATION

Full name of registrant NETWORK-1 SECURITY SOLUTIONS, INC.

Former name if applicable

Address of principal executive office (Street and number)

445 Park Avenue, Suite 1028

City, state and zip code

New York, New York 10022

PART II
RULE 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate.)

- ☒ (a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- ☒ (b) The subject annual report, semi-annual report, transition report on Form 10-K, 20-F, 11-K or Form N-SAR, or portion thereof will be filed on or before the 15th calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q, or portion thereof will be filed on or before the fifth calendar day following the prescribed due date; and
- ☐ (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III
NARRATIVE

State below in reasonable detail why the Form 10-K, 11-K, 20-F 10-Q, N-SAR or the transition report portion thereof could not be filed within the prescribed time period. (Attach extra sheets if needed.)

The Company is unable to file its Form 10-KSB for the year ended December 31, 2005 at this time because of certain issues pertaining to the Company's financial statements which cannot be resolved without unreasonable effort or expense.

PART IV
OTHER INFORMATION

- (1) Name and telephone number of person to contact in regard to this notification

Corey M. Horowitz, Chairman & CEO (212) 829-5700

(Name) (Area Code) (Telephone Number)

- (2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If the answer is no, identify report(s).

☒ Yes ☐ No

- (3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion

thereof?

☒ Yes ☐ No

If so: attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

NETWORK-1 SECURITY SOLUTIONS, INC.

(Name of Registrant as Specified in Charter)

Has caused this notification to be signed on its behalf by the undersigned thereunto duly authorized.

Date: March 31, 2006 By /s/ David C. Kahn

Name: David C. Kahn
Title: Chief Financial Officer

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be filed with the form.

ATTACHMENT

Form 12b-25/Network-1 Security Solutions, Inc.

(3) The Company anticipates that it will incur a net loss of approximately \$1,332,000 for the year ended December 31, 2005 as compared to a net loss of \$1,953,000 for the year ended December 31, 2004.