

NETWORK 1 SECURITY SOLUTIONS INC

Form S-8

October 14, 2009

As filed with the Securities and Exchange Commission on October 14, 2009

REGISTRATION NO. 333-_____

SECURITIES AND EXCHANGE

COMMISSION
WASHINGTON, D.C. 20549

FORM S-8

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

NETWORK-1 SECURITY SOLUTIONS, INC.
(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction
of incorporation)

11-3027591
(I.R.S. employer
identification number)

445 PARK AVENUE, SUITE 1018
NEW YORK, NEW YORK 10022
(212) 829-5770

(Address, including zip code, and telephone number, including area code,
of Registrant's principal executive offices)

NETWORK-1 SECURITY SOLUTIONS, INC.
AMENDED AND RESTATED 1996 STOCK OPTION PLAN
18 INDIVIDUAL OPTION AGREEMENTS
(Full title of the plan)

COREY M. HOROWITZ
CHAIRMAN AND CHIEF EXECUTIVE OFFICER
NETWORK-1 SECURITY SOLUTIONS, INC.
445 PARK AVENUE, SUITE 1018
NEW YORK, NEW YORK 10022
(212) 829-5770
(Address, including zip code, and telephone number,
including area code, of agent for service)

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EISEMAN LEVINE LEHRHAUPT & KAKOYIANNIS, PC
805 THIRD AVENUE, 10TH FLOOR, NEW YORK, NEW YORK 10022
(212) 752-1000

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 | Smaller reporting company |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

| TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED | AMOUNT TO BE REGISTERED (1)(2) | PROPOSED MAXIMUM OFFERING PRICE PER SHARE (3) | PROPOSED MAXIMUM AGGREGATE OFFERING PRICE (3) | AMOUNT REGISTRATION FEE |
|--|---|--|---|-------------------------------|
| Common Stock, par value \$.01 per share, underlying options | 750,000 | \$ 0.83 | \$ 622,500 | \$ 34.74 |
| Common Stock, par value \$.01 per share, underlying options | 1,787,709 | \$ 0.68 | \$ 1,215,642 | \$ 67.83 |
| Common Stock, par value \$.01 per share, underlying options | 100,000 | \$ 0.54 | \$ 54,000 | \$ 3.01 |
| Common Stock, par value \$.01 per share, underlying options | 50,000 | \$ 0.51 | \$ 25,500 | \$ 1.42 |
| Common Stock, par value \$.01 per share, underlying options | 35,000 | \$ 0.35 | \$ 12,250 | \$ 0.68 |
| | | Total Registration Fee: | | \$ 107.68 |

(1) Represents 2,687,709 shares of common stock, par value \$.01 per share (the "Common Stock"), of Network-1 Security Solutions, Inc. (the "Company") issuable upon exercise of 18 individual stock option agreements (the "Option Agreements") issued to employees, officers, directors and consultants of the Company, and 35,000 shares of Common Stock issuable upon exercise of stock options granted by the Company under its Amended and Restated 1996 Stock Option Plan (the "Stock Option Plan"). The prospectus included in this Registration Statement pursuant to General Instruction C of Form S-8 covers the reoffer and resale of the these shares by the selling shareholders. Pursuant to Rule 457(h)(3), no additional registration fee is being paid with respect to the reoffer and resale of the Common Stock being registered pursuant to this Registration Statement.

(2) Pursuant to Rule 416, this registration statement also covers such indeterminate additional shares of Common Stock as may become issuable as a result of any future anti-dilution adjustment in accordance with the terms of the Option Agreements.

(3) Pursuant to Rule 457 (h), based on the price at which the options may be exercised.

EXPLANATORY NOTES

We have prepared this Registration Statement in accordance with the requirements of Form S-8 under the Securities Act of 1933, as amended (the “Securities Act”), to register an aggregate of 2,687,709 shares of our Common Stock issuable to employees, officers directors and consultants pursuant to 18 individual option agreements (the “Option Agreements”) and 35,000 shares of our Common Stock issuable upon exercise of stock options granted under our Amended and Restated 1996 Stock Option Plan (the “Stock Option Plan”).

This Form S-8 includes a Reoffer Prospectus and contains the Form S-3 information required by General Instruction C.1 for Form S-8. The Reoffer Prospectus may be utilized for reofferings and resales of an aggregate of 2,722,709 shares of Common Stock acquired pursuant to the Option Agreements and the Stock Option Plan by selling stockholders who may be deemed “affiliates” (as such term is defined in Rule 405 under the Securities Act) of the Company.

PART I
INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

Item 1. Plan Information*

Item 2. Registrant Information and Employee Plan Annual Information.*

* Information required by Part I to be contained in the Section 10(a) prospectus is omitted from this Registration Statement in accordance with Rule 428 under the Securities Act and the “Note” to Part I of Form S-8. The Registrant will send or give to all participants in the Plan the document(s) containing information required by Part I of Form S-8, as specified in Rule 428(b)(1) promulgated by the Securities and Exchange Commission (the “SEC”) under the Securities Act. The Registrant has not filed such documents with the SEC, but such documents, along with the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II hereof, shall constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PROSPECTUS

2,722,709 SHARES

NETWORK-1 SECURITY SOLUTIONS, INC.

COMMON STOCK (\$.01 PAR VALUE)

This prospectus relates to the reoffer and resale by certain selling stockholders of 2,687,709 shares of our Common Stock, par value \$0.01 per share (“Common Stock”) that may be issued by us upon exercise of options issued to officers, directors, employees and consultants, pursuant to 18 individual option agreements (the “Option Agreements”), and 35,000 shares of our Common Stock that may be issued upon exercise of stock options granted under our Amended and Restated 1996 Stock Option Plan (the “Stock Option Plan”). The shares are being reoffered and resold for the account of the selling stockholders and we will not receive any of the proceeds from the resale of the shares.

The selling stockholders have advised us that the resale of their shares may be effected from time to time in one or more transactions on the OTC Bulletin Board, in negotiated transactions or otherwise, at market prices prevailing at the time of the sale or at prices otherwise negotiated. See “Plan of Distribution.” We will bear all expenses in connection with the preparation of this prospectus.

Our Common Stock is traded on the OTC Bulletin Board. On October 13, 2009, the closing price for our Common Stock, as reported by the OTC Bulletin Board, was \$1.13.

THE SECURITIES OFFERED IN THIS PROSPECTUS INVOLVE A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY CONSIDER THE FACTORS DESCRIBED UNDER THE HEADING “RISK FACTORS” BEGINNING ON PAGE 6 OF THIS PROSPECTUS.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THE DATE OF THIS PROSPECTUS IS OCTOBER 14, 2009.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission (the “Commission”) and therefore omits certain information in such registration statement. We have also filed exhibits with the registration statement that are not included in this prospectus, and you should refer to the applicable exhibit for a complete description of any statement referring to any document. You can inspect a copy of the registration statement and its exhibits, without charge, at the Commission’s public reference room, and can copy such material upon paying the Commission’s prescribed rates.

You should rely only on the information and representations provided or incorporated by reference in this prospectus or any related supplement. We have not authorized anyone else to provide you with different information. The Selling Stockholders will not make an offer of these shares in any state where the offer is not permitted. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date on the front of those documents.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. It does not contain all of the information that you should consider before investing in our common stock. You should read the entire prospectus carefully, including the section entitled “Risk Factors” and our consolidated financial statements and the related notes.

Unless the context otherwise requires, all references to “we,” “us,” “our,” or the “Company” in this prospectus refer to Network-1 Security Solutions, Inc., a Delaware corporation.

THE COMPANY

Our principal business is the acquisition, development, licensing and protection of our intellectual property. We presently own six patents issued by the U.S. Patent Office that relate to various telecommunications and data networking technologies (the “Patent Portfolio”) and include, among other things, patents covering the delivery of power over Ethernet for the purpose of remotely powering Network devices, and the transmission of audio, video, and data over computer and telephony networks. Our strategy is to pursue licensing and strategic business alliances with companies in industries that manufacture and sell products that make use of the technologies underlying our Patent Portfolio as well as with other users of the technologies who benefit directly from the technologies, including corporate, educational and governmental entities.

To date, our efforts with respect to our Patent Portfolio have focused on licensing our patent (U.S. Patent No. 6,218,930) covering the control of power delivery over Ethernet cables (the “Remote Power Patent”). As of the date of this prospectus, we had entered into six license agreements with respect to our Remote Power Patent, which among others, included license agreements with Netgear, Inc., Microsemi Corporation and D-Link. At least for the next twelve months, we do not presently anticipate licensing efforts for our other patents besides our Remote Power Patent. We may seek to acquire additional patents in the future.

Our Remote Power Patent relates to several technologies which describe a methodology for controlling the delivery of power to certain devices over an Ethernet network. Ethernet is the leading local area networking technology in use today. PoE technology allows for the delivery of power over Ethernet cables rather than by separate power cords. As a result, a variety of network devices, including IP telephones, wireless LAN Access Points, web-based network security cameras, data

collection terminals and other network devices, are able to receive power over existing data cables without the need to modify the existing infrastructure to facilitate the provision of power for such devices through traditional AC outlets. Advantages of PoE, such as lower installation costs, remote management capabilities, lower maintenance costs, centralized power backup, and flexibility of device location as well as the advent of worldwide power compatibility, create the possibility of PoE becoming widely adopted in networks throughout the world.

Our future success is largely dependent upon our proprietary technologies, our ability to protect our intellectual property rights and to consummate license agreements with respect to our Patent Portfolio. The complexity of patent and common law, combined with our limited resources, create risk that our efforts to protect our proprietary technologies may not be successful. We cannot be assured that our patents will be upheld or that third parties will not invalidate our patents.

We were incorporated under the laws of the State of Delaware in July 1990. Our executive offices are located at 445 Park Avenue, Suite 1018, New York, New York 10022 and our telephone number at that address is (212) 829-5770. Our web site can be found at <http://www.network-1.com>.

Pending Litigation Against Major Data Networking Equipment Manufacturers

In February 2008, we commenced litigation against several major data networking equipment manufacturers in the United States District Court for the Eastern District of Texas, Tyler Division, for infringement of our Remote Power Patent. The complaint named as defendants Cisco Systems, Inc., Cisco Linksys, LLC, Enterasys Networks, Inc., 3COM Corporation, Inc., Extreme Networks, Inc., Foundry Networks, Inc., Netgear, Inc. and Adtran, Inc. The Company seeks injunctive relief and monetary damages for infringement based upon reasonable royalties as well as treble damages for the defendants continued willful infringement of the Remote Power Patent. The defendants, in their answers to the complaint, asserted that they do not infringe any valid claim of the Remote Power Patent, and further asserted that, based on several different theories, the patent claims are invalid or unenforceable. In addition to these defenses, the defendants also asserted counterclaims for, among other things, non-infringement, invalidity, and unenforceability of the Remote Power Patent. A Markman hearing, a hearing on claim construction of our Remote Power Patent, is currently scheduled for December 2009 and a trial date has been set for July 2010. In the event that the court determines that our Remote Power Patent is not valid or enforceable, and/or that the defendants do not infringe, any such determination would have a material adverse effect on us.

In May 2009 we settled the above referenced litigation with defendant Netgear, Inc. (“Netgear”). As part of the settlement and under our Special Licensing Program, Netgear entered into a license agreement with us for the Remote Power Patent, effective April 1, 2009. Under the terms of the license, Netgear licenses our Remote Power Patent for its full term which expires in March 2020, and pays quarterly royalties (which began as of April 1, 2009) based on its sales of Power over Ethernet products, including those PoE products which comply with the Institute of Electrical and Electronic Engineers 802.3af and 802.3at Standards. Licensed products include Netgear’s Power over Ethernet enabled switches and wireless access points. The royalty rates included in the Netgear license are 1.7% of the sales price of Power Sourcing Equipment, which includes Ethernet switches, and 2% of the sales price of Powered Devices, which includes wireless access points. The royalty rates are subject to adjustment, under certain circumstances, if we grant a license to other licensees with lower royalty rates and Netgear is able to and agrees to assume all material terms and conditions of such other license. In addition, Netgear paid us \$350,000 upon the signing of the license agreement.

D-Link Settlement

In August 2005, we commenced patent litigation against D-Link Corporation and D-Link Systems, Incorporated (collectively “D-Link”) in the United States District Court for the Eastern District of Texas, Tyler division (Civil Action No. 6:05W291), for infringement of our Remote Power Patent (the “D-Link Litigation”). The complaint sought, among other things, a judgment that the our Remote Power Patent is enforceable and has been infringed by the defendants. We also sought a permanent injunction restraining the defendants from continued infringement, or active inducement of infringement by others, of the Remote Power Patent.

In August 2007, we finalized the settlement of the D-Link Litigation. Under the terms of the settlement, D-Link entered into a license agreement for our Remote Power Patent the terms of which included monthly royalty payments of 3.25% (subject to adjustment as noted below) of the net sales of D-Link Power over Ethernet products, including those products which comply with the IEEE 802.3af and 802.3at Standards, for the full term of the Remote Power Patent, which expires in March 2020. In addition, D-Link paid us \$100,000 upon signing of the Settlement Agreement. The royalty rate is subject to adjustment to a rate consistent with other similarly situated licensees of our Remote Power Patent based on units of shipments of licensed products. In June 2009, based upon several licenses issued to third parties under the our Special Licensing Program, we agreed in principle with D-Link to adjust the royalty rate to 1.7% of the sales price for Power Servicing Equipment (which includes Ethernet switches) and 2.0% of the sales price for Powered Devices (which includes wireless access points).

Microsemi Agreement and License

On November 16, 2005 we entered into a Settlement Agreement with PowerDsine, Inc and PowerDsine Ltd. which dismissed, with prejudice, a civil action brought by PowerDsine in the United States District Court for the Southern District of New York that sought a declaratory judgment that our Remote Power Patent was invalid and not infringed by PowerDsine and/or its customers. Under the terms of the Settlement Agreement, we agreed that we will not initiate litigation against PowerDsine for its sale of Power over Ethernet (PoE) integrated circuits. In addition, we agreed that we will not seek damages for infringement from customers that incorporate PowerDsine integrated circuit products in PoE capable Ethernet switches manufactured on or before April 30, 2006. PowerDsine agreed that it will not initiate, assist or cooperate in any legal action relating to the Remote Power Patent.

In June 2008, we entered into a new agreement with Microsemi Corp-Analog Mixed Signal Group Ltd (“Microsemi Analog”), previously PowerDsine Ltd, a subsidiary of Microsemi Corporation (“Microsemi”), a leading manufacturer of high performance analog mixed-signal integrated circuits and high reliability semiconductors, which, among other things, amended the prior Settlement Agreement entered into between the parties in November 2005. As part of our Special Licensing Program and our agreement with Microsemi Analog entered into in June 2008, Microsemi, entered into a license agreement, dated August 13, 2008, with us with respect to the Remote Power Patent. The license agreement provides that Microsemi is obligated to pay us quarterly royalty payments of 2% of the sales price for certain of Microsemi’s Midspan PoE products for the full term of the Remote Power Patent (March 2020).

RISK FACTORS

An investment in our Common Stock involves a high degree of risk. The risk factors listed below are those that we consider to be material to an investment in our Common Stock and those which, if realized, could have material adverse effects on our business, financial condition or results of operations as specifically discussed below. In such an event, the trading price of our Common Stock could decline, and you could lose all or part of your investment. Before you invest in our Common Stock, you should be aware of various risks, including those described below. You should carefully consider these risk factors, together with all of the other information included or incorporated by reference in this prospectus, before you decide whether to purchase our Common Stock. This section includes or refers to certain forward-looking statements. You should refer to the explanation of the qualifications and limitations on such forward-looking statements discussed on page 12.

We have a history of losses and modest revenue from current operations.

We have incurred substantial operating losses since our inception, which has resulted in an accumulated deficit of \$(52,158,000) as of June 30, 2009. For the years ended December 31, 2008 and December 31, 2007 and for the six months ended June 30, 2009, we incurred net losses of \$(1,618,000), \$(2,998,000) and \$(1,262,000), respectively. We have financed our operations primarily by sales of our equity securities and royalty revenue from licensing our Remote Power Patent. We had revenue of \$349,000 and \$514,000 from operations for the year ended December 31, 2008 and the six months ended June 30, 2009, respectively. Our ability to achieve revenue and generate positive cash flow from operations is dependent upon consummating licensing agreements with respect to our patented technologies. As of the date of this prospectus, we had entered into 6 license agreements with respect to our Remote Power Patent, which among others, included license agreements with Netgear, Inc., Microsemi Corporation and D-Link. We may not be successful in achieving additional material licensing agreements with third parties and our failure to do so would have a material adverse effect on our business, financial condition and results of operations. We may not be able to achieve material revenue or generate positive cash flow from operations from our licensing business.

We could be required to stop operations if we are unable to develop our technology licensing business or raise capital when needed.

We anticipate, based on our currently proposed plans and assumptions relating to our operations (including the timetable of, costs and expenses associated with our continued operations), that our cash position of \$3,869,000 at June 30, 2009 will more likely than not be sufficient to satisfy our operations and capital requirements until at least December 31, 2010. However, we may expend our funds prior thereto. In the event our plans change, or our assumptions change or prove to be inaccurate (due to unanticipated expenses, difficulties, delays or otherwise), we could have insufficient funds to support our operations prior to December 31, 2010. Our inability to obtain additional financing when needed, absent generating sufficient cash from licensing arrangements, would have a material adverse effect on us, requiring us to curtail or possibly cease our operations. In addition, any additional equity financing may involve substantial dilution to the interests of our then existing stockholders.

Our licensing business may not be successful.

In November 2003, we entered the technology licensing business following our acquisition of six patents relating to various telecommunications and data networking technologies including, among others, patents covering the delivery of remote power over Ethernet and the transmission of audio, video and data over computer and telephony networks. As of the date of this prospectus, we have only entered into 6 license agreements with third parties with respect to our patented technology. Accordingly, we have a limited history in the technology licensing business upon which an evaluation of our prospects and future performance can be made. Our prospects must be considered in light of the risks, expenses and difficulties frequently encountered in the development, operation and expansion of a new business based on patented technologies including the risks and uncertainty of litigation. We may not be able to achieve sufficient revenue or profitable operations from our licensing business.

Our future source of licensing revenue is uncertain.

In February 2004, we initiated our first licensing efforts relating to our Remote Power Patent. To date, we have entered into 6 license agreements with respect to our Remote Power Patent. Our inability to consummate additional licensing agreements and achieve material revenue from our patented technologies would have a material adverse effect on our operations and possibly our ability to continue our business. In addition, our existing license agreements, as well as additional license agreements which may be entered into in the future, may not produce a stable or predictable stream of revenue in the foreseeable future. Furthermore, the success of our licensing efforts depends upon the strength of our intellectual property rights.

Our success is dependent upon our ability to protect our proprietary technologies.

Our success is substantially dependent upon our proprietary technologies and our ability to protect our intellectual property rights. We currently hold 6 patents issued by the U.S. Patent Office that relate to various telecommunications and data networking technologies and include among other things, patents covering the delivery of power to certain devices over PoE networks and the transmission of audio, voice and data over computer and telephony networks. We rely upon our patents and trade secret laws, non-disclosure agreements with our employees, consultants and third parties to protect our intellectual property rights. The complexity of patent and common law, our limited resources, and the uncertainty of the outcome of litigation create risk that our efforts to protect our proprietary technologies may not be successful. We cannot assure you that our patents will be upheld or that third parties will not invalidate our patent rights. If our intellectual property rights are not upheld, such an event would have a material adverse effect on us.

Any litigation to protect our intellectual property or any third party claims to invalidate our patents could have a material adverse effect on our business.

Our success depends on our ability to protect our intellectual property rights. In August 2005, we commenced patent litigation against D-Link Corporation and D-Link Systems, Incorporated for infringement of our Remote Power Patent and in April 2007 we entered into a settlement agreement with the D-Link parties. In addition, in February 2008 we commenced patent litigation against Cisco Systems, Inc. and seven other major data networking equipment manufacturers which is currently pending in the United States District Court for the Eastern District of Texas, Tyler Division. Although on May 29, 2009 we announced that we had agreed to settle this litigation with respect to defendant Netgear, Inc., the litigation is still pending with respect to the other defendants. In the future, it may be necessary for us to commence patent litigation against additional third parties whom we believe require a license to our patents. In addition, we may be subject to claims seeking to invalidate our patents, as asserted by the defendants in the aforementioned pending litigation in Texas

with us. These types of claims, with or without merit, may subject us to costly litigation and diversion of management's focus. If we are unsuccessful in enforcing and validating our patents and/or if third parties making claims against us seeking to invalidate our patents are successful, they may be able to obtain injunctive or other equitable relief, which effectively could block our ability to license or otherwise capitalize on our proprietary technologies. Successful litigation against us resulting in a determination that our patents are not valid or enforceable, and/or that third parties do not infringe, would have a material adverse effect on us.

Our license agreements with Netgear, Inc., D-Link and Microsemi may not result in significant royalties and do not necessarily mean we will achieve additional license agreements.

For the year ended December 31, 2008 and for the six months ended June 30, 2009, we received aggregate royalty payments of \$349,000 and \$514,000, respectively, with respect to our license agreements. Our royalty revenue may not be stable or predictable for the foreseeable future. Notwithstanding our license agreements with the D-Link, Microsemi and Netgear, Inc., there is no assurance that we will achieve significant royalty revenue from such license agreements, that we will be able to achieve additional material license agreements with third parties relating to our Remote Power Patent or any of our other patents. Our failure to achieve significant royalty revenue from our existing license agreements, or if we are unable to enter into additional license agreements resulting in material royalty revenue, would have a material adverse effect on our business, financial condition and results of operations.

We face uncertainty as to the outcome of our litigation against major data networking equipment manufacturers.

In February 2008, we commenced litigation against eight major data networking equipment manufacturers in the United States District Court for the Eastern District of Texas, Tyler Division, for infringement of our Remote Power Patent. The complaint named as defendants Cisco Systems, Inc., Cisco Linksys, LLC, Enterasys Networks, Inc., 3COM Corporation, Inc., Extreme Networks, Inc., Foundry Networks, Inc., Netgear, Inc. and Adtran, Inc. We seek injunctive relief and monetary damages for infringement based upon reasonable royalties as well as treble damages for the defendant's continued willful infringement of our Remote Power Patent. The defendants in their answer asserted that they do not infringe any valid claim of our Remote Power Patent, and further asserted that, based on several different theories, the patent claims are invalid or unenforceable. In addition to these defenses, the defendants also asserted counterclaims for, among other things, non-infringement, invalidity, and unenforceability of our Remote Power Patent. A Markman hearing, a hearing on claim construction of our Remote Power Patent, is currently scheduled for December 2009 and a trial date has been set for July 2010. In the event that the Court determines that our Remote Power Patent is not valid or enforceable, and/or that the defendants do not infringe, any such determination would have a material adverse effect on us.

Material licensing revenues from our Remote Power Patent may be dependent upon the applicability of the IEEE Standard.

The Institute of Electrical and Electronic Engineers (IEEE) is a non-profit, technical professional association of more than 370,000 individual members in approximately 160 countries. The Standards Association of the IEEE is responsible for the creation of global industry standards for a broad range of technology industries. In 2000, the IEEE formed a task force to facilitate the adoption of a standardized methodology for the delivery of remote power over Ethernet networks which would insure interoperability among vendors of switches and terminal devices. In June 2003, the IEEE Standards Association approved the 802.3af Power Over Ethernet standard (the "Standard"), which covers technologies deployed in delivering power over Ethernet cables including whether deployed in switches or as standalone midspan hubs both of which provide power to remote

devices including, among others, wireless access points, IP phones and network based cameras. The technology is commonly referred to as PoE. We believe our Remote Power Patent covers several of the key technologies covered by the Standard. However, there is a risk that as a result of litigation a court may determine otherwise and such a determination would have a material adverse effect on our ability to enter into license agreements and achieve material revenue and profits from our Remote Power Patent.

Our markets are subject to rapid technological change and our technologies face potential technology obsolescence.

The telecommunications and data networking technology market, including transmission of audio, video and data over computer and telephony networks and the delivery of remote PoE markets, are characterized by rapid technological changes, changing customer requirements, frequent new product introductions and enhancements, and evolving industry standards. The introduction of products embodying new technologies and the emergence of new industry standards may render our technologies obsolete or less marketable.

In addition, other companies may develop competing technologies that offer better or less expensive alternatives to PoE and the other technologies covered by our Patent Portfolio. Several companies have notified the IEEE that they may have patents and proprietary technologies that are covered by the Standard. In the event any of those companies asserts claims relating to our patents, the licensing royalties available to us may be limited. Moreover, technological advances or entirely different approaches developed by one or more of our competitors or adopted by various standards groups could render our Remote Power Patent obsolete, less marketable or unenforceable.

Dependence upon CEO and Chairman.

Our success is largely dependent upon the personal efforts of Corey M. Horowitz, our Chairman and Chief Executive Officer and Chairman of our Board of Directors. On June 8, 2009, we entered into a new employment agreement with Mr. Horowitz pursuant to which he continues to serve as our Chairman and Chief Executive Officer for a three year term. However, any loss of the services of Mr. Horowitz would have a material adverse effect on our business and prospects. We do not maintain key-man life insurance on the life of Mr. Horowitz.

Risks related to low priced stocks.

Our common stock currently trades on the OTC Bulletin Board under the symbol NSSI. Since the trading price of our common stock is below \$5.00 per share, our common stock is considered a penny stock. SEC regulations generally define a penny stock to be an equity security that is not listed on Nasdaq or a national securities exchange and that has a market value of less than \$5.00 per share, subject to certain exceptions. SEC regulations require broker-dealers to deliver to a purchaser of our common stock a disclosure schedule explaining the penny stock market and the risks associated with it. Various sales practice requirements are also imposed on broker-dealers who sell penny stocks to persons other than established customers and accredited investors (generally institutions). Broker-dealers must also provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and monthly account statements disclosing recent price information for the penny stock held in the customer's account.

The significant number of options and warrants outstanding may adversely effect the market price for our common stock.

As of the date of this prospectus, there are outstanding options and warrants to purchase an aggregate of 12,878,082 shares of our common stock at exercise prices ranging from \$.12 to \$10.00. To the extent that outstanding options and warrants are exercised, existing stockholder percentage ownership will be diluted and any sales in the public market of the common stock underlying such options may adversely affect prevailing market prices for our common stock.

We have a significant amount of authorized but unissued preferred stock, which may affect the likelihood of a change of control in our company.

Our Board of Directors has the authority, without further action by our stockholders, to issue 10,000,000 shares of preferred stock on such terms and with such rights, preferences and designations as our Board of Directors may determine. Such terms may include restricting dividends on our common stock, dilution of the voting power of our common stock or impairing the liquidation rights of the holders of our common stock. Issuance of such preferred stock, depending on the rights, preferences and designations thereof, may have the effect of delaying, deterring or preventing a change in control. In addition, certain “anti-takeover” provisions in Delaware law may restrict the ability of our stockholders to authorize a merger, business combination or change of control.

Our stock price may be volatile.

The market price of our common stock is likely to be highly volatile and could fluctuate widely in price in response to various factors, many of which are beyond our control, including the following:

our ability to successfully enforce and/or defend our Remote Power Patent;

our ability to enter into favorable license agreements with third parties with respect to our Remote Power Patent;

our ability to achieve material revenue and profits;

our ability to raise capital when needed;

sales of our common stock;

our ability to execute our business plan;

technology changes;

legislative, regulatory and competitive developments; and

economic and other external factors.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of our common stock.

Additional stock offerings may dilute current stockholders.

We may need to issue additional shares of our capital stock or securities convertible or exercisable for shares of our capital stock, including preferred stock, options or warrants. The issuance of additional capital stock may dilute the ownership of our current stockholders.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports and other information with the SEC (File No. 001-15288). You may read and copy these reports and other information at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the SEC's Public Reference Room by calling the SEC at 1-800-SEC-0330. Copies may be obtained from the SEC by paying the required fees. The SEC maintains an internet website that contains reports, proxy and information statements and other information regarding us and other issuers that file electronically with the SEC. The SEC's website is <http://www.sec.gov>. Our SEC filings are also available to the public over the Internet at the SEC's web site at <http://www.sec.gov>.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus information we file with them, which means that we can disclose important information to you by referring to documents we have previously filed with the SEC. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. Except to the extent that information is deemed furnished and not filed pursuant to securities laws and regulations, we incorporate by reference the documents listed below and any future documents we file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"), until we terminate this offering:

1. Our Annual Report on Form 10-K for the year ended December 31, 2008 (filed March 31, 2009);
2. Our Quarterly Reports on Form 10-Q for the periods ended March 31, 2009 (filed May 14, 2009) and June 30, 2009 (filed August 13, 2009);
3. Our current reports on Form 8-K filed on March 17, 2009, May 29, 2009 and June 12, 2009; and
4. The description of our Common Stock incorporated by reference in our Registration Statement on Form 8-A (filed October 9, 1998), as amended on November 3, 1998.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which is also or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

We will provide at no cost to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with the prospectus, excluding the exhibits to such filings that we have not specifically incorporated by reference in such filings. You should direct such requests to us at 445 Park Avenue, Suite 1018, New York, New York 10021, Attention: Corey M. Horowitz, Chairman and Chief Executive Officer, telephone number (212) 829-5770.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains certain forward-looking statements that are statements that include information based upon beliefs of our management, as well as assumptions made by and information available to our management. Statements containing terms such as “believes,” “expects,” “anticipates,” “intends” or similar words are intended to identify forward-looking statements.

Our management, based upon assumptions they consider reasonable, has compiled these forward-looking statements. Such statements reflect our current views with respect to future events. These statements involve known and unknown risks and uncertainties that may cause our actual results in future periods to differ materially from what is currently anticipated. We make cautionary statements in certain sections of this prospectus, including under “Risk Factors.” You should read these cautionary statements as being applicable to all related forward-looking statements wherever they appear in this prospectus, the materials referred to in this prospectus or the materials incorporated by reference into this prospectus.

You are cautioned that no forward-looking statement is a guarantee of future performance and you should not place undue reliance on any forward-looking statement. Such statements speak only as of the date of this prospectus and we are not undertaking any obligation to publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

The shares of Common Stock offered by this prospectus are being registered for the account of the selling stockholders identified in this prospectus. See “Selling Stockholders.” All net proceeds from the sale of Common Stock will go to the shareholders who offer and sell their shares. We will not receive any part of the proceeds from such sales. We will, however, receive the exercise price of the options at the time of their exercise (exclusive of options to purchase 2,232,709 shares which may be exercised on a “cashless” basis, if they are exercised on a “cashless” basis). If all of the options are exercised (assuming no exercise on a “cashless” basis), we will realize proceeds in the amount of \$1,929,892. The proceeds will be contributed to working capital and will be used for general corporate purposes.

SELLING STOCKHOLDERS

This prospectus relates to the reoffer and resale of shares of common stock (“Common Stock”) issued or that may be issued to the selling stockholders upon exercise of options issued to officers, directors, employees and consultants pursuant to 18 individual option agreements and 35,000 shares of our Common Stock issuable upon exercise of stock options granted under our Stock Option Plan. The following table sets forth (i) the number of shares of Common Stock beneficially owned by each selling stockholder as of the date of this prospectus, (ii) the number of shares to be offered for resale by each selling stockholder (i.e., the total number of shares underlying options held by each selling stockholder irrespective of whether such options are presently exercisable or exercisable within sixty days of the date of this prospectus), and (iii) the number and percentage of shares of our Common Stock to be held by each selling stockholder after completion of the offering. All of the selling stockholders have had a material relationship with us (except for Michael A. Kahn and Shari Kahn Brothman) within the past three years other than as a result of the ownership of our securities as follows: (i) Corey M. Horowitz is our Chairman and Chief Executive Officer, (ii) David Kahn is our Chief Financial Officer, (iii) Mr. Horowitz, Mr. Pons and Mr. Ohana serve on our board of directors, (iv) Robert Graifman is a former director (v) Mr. Greene and Mr. Katzenberg serve on our Technical Advisory Board and Mr. Greene has and continues to provide consulting services to us and (vi) Evan Smith provides consulting services to us.

| NAME(1) | NUMBER OF SHARES BENEFICIALLY OWNED PRIOR TO OFFERING(2) | NUMBER OF SHARES BEING OFFERED(3) | NUMBER OF SHARES OF BENEFICIALLY OWNED AFTER OFFERING(4) | PERCENTAGE OUTSTANDING COMMON STOCK AFTER OFFERING(4) |
|---------------------|---|---|--|---|
| Corey M. Horowitz | 10,229,935(5) | 2,232,709(6) | 7,997,226 | 27.4% |
| David Kahn | 212,500(7) | 100,000(8) | 112,500 | * |
| Laurent Ohana | 225,000(9) | 75,000(10) | 150,000 | * |
| Robert Pons | 175,000(11) | 75,000(12) | 100,000 | * |
| Robert Graifman | 327,500(13) | 37,500(14) | 290,000 | 1.3% |
| Jon Greene | 205,834(15) | 100,000(16) | 105,834 | * |
| Evan Smith | 43,750(17) | 50,000(18) | 0 | 0% |
| Boris Katzenberg | 17,500(19) | 17,500(19) | 0 | 0% |
| Michael A. Kahn | 25,000(20) | 10,000(21) | 15,000 | 0% |
| Shari Kahn Brothman | 25,000(22) | 25,000(22) | 0 | 0% |

* Less than 1%

(1) Except as otherwise indicated, the address for each beneficial owner is c/o Network-1 Security Solutions, Inc., 445 Park Avenue, Suite 1018, New York, New York 10022.

(2) Unless otherwise indicated, we believe that all persons named in the above table have sole voting and investment power with respect to all shares of Common Stock beneficially owned by them. A person is deemed to be the beneficial owner of securities that can be acquired by such person within 60 days from the date hereof upon the exercise of options, warrants or convertible securities.

- (3) Consists of shares issuable upon the exercise of options both currently exercisable and not currently exercisable.
- (4) Beneficial ownership of shares held by each selling stockholder after this offering has been calculated, for purposes of this disclosure, by subtracting the number of shares registered for sale by each selling shareholder from that selling shareholder's current beneficial ownership as disclosed in column 2. Beneficial ownership by each selling shareholder as disclosed assumes that each selling stockholder sold all of the shares he or she is offering in this prospectus but actually will depend on the number of shares sold by such selling stockholder in this offering. Each beneficial owner's percentage ownership is determined by assuming that options, warrants and convertible securities held by such person (but not those held by any other person) and which are exercisable or convertible within 60 days have been exercised or converted. Assumes a base of 24,135,557 shares of Common Stock outstanding.
- (5) Includes (i) 343,803 shares of Common Stock held by Mr. Horowitz, (ii) 5,945,570 shares of Common Stock subject to currently exercisable stock options held by Mr. Horowitz, an entity solely owned by Mr. Horowitz, (iii) 2,467,800 shares of Common Stock held by CMH Capital Management Corp. ("CMH"), (iv) 550,000 shares of Common Stock subject to currently exercisable warrants held by CMH, (v) 750,000 shares of Common Stock subject to currently exercisable options held by CMH, (vi) 67,471 shares of Common Stock owned by Donna Slavitt, the wife of Mr. Horowitz, (vii) an aggregate of 165,000 shares of Common Stock held by two trusts and a custodian account for the benefit of Mr. Horowitz's three children and (viii) 2,291 shares of Common Stock held by Horowitz Partners, a general partnership of which Mr. Horowitz is a partner. Does not include options to purchase 635,625 shares of Common Stock which are not currently exercisable or not exercisable within 60 days of the date hereof.
- (6) Includes 1,607,709 shares of Common Stock subject to currently exercisable stock options held by Mr. Horowitz and 625,000 shares of common stock subject to options not currently exercisable.
- (7) Includes 212,500 shares of Common Stock subject to currently exercisable stock options issued to Mr. Kahn. Does not include options to purchase 37,500 shares of Common Stock which are not currently exercisable.
- (8) Includes 62,500 shares of Common Stock subject to currently exercisable stock options issued to Mr. Kahn and options to purchase 37,500 shares of Common Stock which are not currently exercisable.
- (9) Includes 225,000 shares of Common Stock subject to currently exercisable options and warrants issued to Mr. Ohana.
- (10) Includes 75,000 shares of Common Stock subject to currently exercisable options issued to Mr. Ohana.
- (11) Includes 175,000 shares of Common Stock subject to currently exercisable stock options issued to Mr. Pons.
- (12) Includes 75,000 shares of Common Stock subject to currently exercisable options issued to Mr. Pons.
- (13) Includes (i) 100,000 shares of Common Stock and (ii) 75,000 shares of Common Stock subject to currently exercisable warrants and (iii) 152,500 shares of Common Stock subject to currently exercisable stock options issued to Mr. Graifman.

- (14) Includes 37,500 shares of Common Stock subject to currently exercisable options issued to Mr. Graifman.
- (15) Includes 205,834 shares of Common Stock subject to currently exercisable options issued to Mr. Greene. Does not include 61,666 shares of Common Stock subject to options which are not currently exercisable.
- (16) Includes 38,334 shares of Common Stock subject to options currently exercisable and 61,666 shares of Common Stock subject to options which are not currently exercisable.
- (17) Includes 43,750 shares of Common Stock subject to currently exercisable options issued to Mr. Smith. Does not include 6,250 shares of Common Stock subject to options which are not currently exercisable.
- (18) Includes 43,750 shares of Common Stock subject to currently exercisable options and 6,250 shares of Common Stock subject to options which are not currently exercisable.
- (19) Includes 17,500 shares of Common Stock subject to currently exercisable options.
- (20) Includes 15,000 shares of Common Stock and 10,000 shares of Common Stock subject to currently exercisable options owned by Michael A. Kahn. These options were originally issued under our Stock Option Plan to David Kahn, our Chief Financial Officer and the father of Michael A. Kahn, who by gift transferred the options to Michael A. Kahn.
- (21) Includes 10,000 shares of Common Stock subject to currently exercisable options.
- (22) Includes 25,000 shares of Common Stock subject to currently exercisable options. These options were originally issued under our Stock Option Plan to David Kahn, our Chief Financial Officer and the father of Shari Kahn Brothman, who by gift transferred the options to Shari Kahn Brothman.

PLAN OF DISTRIBUTION

This offering is self-underwritten. Neither we nor the selling stockholders have employed an underwriter for the sale of Common Stock by the selling stockholders. We will bear all expenses in connection with the preparation of this prospectus. The selling stockholders will bear all expenses associated with the sale of their Common Stock. There can be no assurance that the selling stockholders will sell any or all of the shares of Common Stock offered by them under this prospectus or otherwise.

At the time a selling stockholder makes an offer to sell shares, to the extent required by the Securities Act of 1933, as amended (the "Securities Act"), a prospectus will be delivered. If a supplemental prospectus is required, one will be delivered setting forth the number of shares being offered and the terms of the offering.

The selling stockholders may offer their shares of Common Stock directly or through pledgees, donees, transferees or other successors-in-interest in one or more of the following transactions:

- ordinary brokerage transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
 - privately negotiated transactions;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
 - a combination of any such methods of sale; and
 - any other method permitted pursuant to applicable law.

The selling stockholders may offer their shares of Common Stock at any of the following prices:

- fixed prices that may be changed;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices; and
 - at negotiated prices.

The selling stockholders may effect transactions by selling shares to or through broker-dealers, and all such broker-dealers may receive compensation in the form of discounts, concessions, or commissions from the selling stockholders and/or the purchasers of shares of Common Stock for whom such broker-dealers may act as agents or to whom they sell as principals, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions).

Any broker-dealer acquiring Common Stock from the selling stockholders may sell the shares either directly, in its normal market-making activities, through or to other brokers on a principal or agency basis or to its customers. Any such sales may be at prices then prevailing on the OTC Bulletin Board or at prices related to such prevailing market prices or at negotiated prices to its customers or a combination of such methods. The selling stockholders and any broker-dealers that act in connection with the sale of the Common Stock hereunder might be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act; any commission received by them and any profit on the resale of shares as principal might be deemed to be underwriting discounts and commissions under the Securities Act. Any such commissions, as well as other expenses incurred by the selling stockholders and applicable transfer taxes, are payable by the selling stockholders.

The selling stockholders reserve the right to accept, and together with any agent of the selling stockholder, to reject in whole or in part any proposed purchase of the shares of Common Stock. The selling stockholders will pay any sales commissions or other seller’s compensation applicable to such transactions.

We have not registered or qualified offers and sales of shares of the Common Stock under the laws of any country other than the United States. To comply with certain states’ securities laws, if applicable, the selling stockholders will offer and sell their shares of Common Stock in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the selling stockholders may not offer or sell shares of Common Stock unless we have registered or

qualified such shares for sale in such states or we have complied with an available exemption from registration or qualification.

The selling stockholders with respect to any purchase or sale of shares of Common Stock are required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended. In general, Rule 102 under Regulation M prohibits any person connected with a distribution of securities (the "Distribution") from bidding for, purchasing, or attempting to induce any person to bid for or purchase for any account in which he or she has a beneficial interest, any of such securities or any right to purchase such securities, for a period beginning one or more business days before and ending one day after completion of his or her participation in the Distribution (we refer to that time period as the "Distribution Period").

During the Distribution Period, Rule 104 under Regulation M prohibits the selling stockholders and any other persons engaged in the Distribution from engaging in any stabilizing bid or purchasing of our Common Stock except for the purpose of preventing or retarding a decline in the open market price of our Common Stock. No such person may effect any stabilizing transaction to facilitate any offering at the market. Inasmuch as the selling shareholders will be reoffering and reselling our Common Stock at the market, Rule 104 prohibits them from effecting any stabilizing transaction in contravention of Rule 104 with respect of our Common Stock.

Any shares of Common Stock covered by this prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus. There can be no assurance that the selling stockholders will sell any or all of the shares offered by them hereunder or otherwise. To our knowledge, there are currently no plans, arrangements or understandings between the selling stockholders and any underwriter, broker, dealer, agent or other person regarding the sale of Common Stock by the selling stockholders.

LEGAL MATTERS

The validity of the shares of Common Stock offered hereby have been passed upon for us by Eiseman Levine Lehrhaupt & Kakoyiannis, P.C., 805 Third Avenue, New York, New York 10022. Sam Schwartz, a partner of that firm, owns 23,584 shares of our Common Stock and options to purchase 2,500 shares of our Common Stock as of the date of this prospectus.

EXPERTS

Our financial statements as of December 31, 2008 and 2007 and for each of the years then ended appearing in our annual report on Form 10-K for the year ended December 31, 2008 have been audited by Radin, Glass & Co., LLP, independent registered public accounting firm, as set forth in their report dated March 25, 2009 included in the annual report. Those financial statements are incorporated by reference in this prospectus in reliance upon that report given on the authority of Radin, Glass & Co., LLP as experts in accounting and auditing.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our Certificate of Incorporation and Bylaws provide our directors with protection for breaches of their fiduciary duties to us and our shareholders. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or persons controlling us, we have been advised that it is the SEC's opinion that such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

In the event that a claim for indemnification against such liabilities (other than the payment by us of expenses incurred or paid by a director, officer or controlling person in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

NETWORK-1 SECURITY SOLUTIONS, INC.

2,722,709 SHARES OF COMMON STOCK

PROSPECTUS

OCTOBER 14, 2009

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

Except to the extent that information is deemed furnished and not filed pursuant to securities laws and regulations, the following documents, which we have filed with the Commission are hereby incorporated by reference into this Registration Statement:

- a. Our Annual Report on Form 10-K for the year ended December 31, 2008 (filed March 31, 2009);
- b. All other reports that we have filed pursuant to Section 13(a) or 15(d) since the end of the fiscal year covered by the report referred to in (a) above; and
- c. The description of our Common Stock incorporated by reference in our Registration Statement on Form 8-A (filed October 9, 1998), including any amendments or reports filed for purposes of updating such description.

Except to the extent that information is deemed furnished and not filed pursuant to securities laws and regulations, all documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is, or is deemed to be, incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement. For the avoidance of doubt, information furnished pursuant to Item 2.02 or 7.01 of any Current Report on Form 8-K shall not be deemed incorporated by reference herein or otherwise to form a part hereof.

ITEM 4. DESCRIPTION OF SECURITIES

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL

The validity of the Common Stock offered hereby has been passed upon for us by Eiseman Levine Lehrhaupt & Kakoyiannis, P.C., 805 Third Avenue, New York, New York 10022. Sam Schwartz, a member of that firm, owns as of the date of the filing of this registration statement 23,584 shares of our common stock and options to purchase 2,500 shares of our common stock.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Registrant is a Delaware corporation. Reference is made to Section 102(b)(7) of the General Corporation Law of the State of Delaware (the "DGCL"), which enables a corporation in its original certificate of incorporation or an amendment to eliminate or limit the personal liability of a director for violations of the director's fiduciary duty, except (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL

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(providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which a director derived an improper personal benefit.

Reference is also made to Section 145 of the DGCL, which provides that a corporation may indemnify any persons, including officers and directors, who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was a director, officer, employee or agent of such corporation or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such director, officer, employee or agent acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. A Delaware corporation may indemnify officers and directors in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses that such officer or director actually and reasonably incurred. The indemnification permitted under the DGCL is not exclusive, and a corporation is empowered to purchase and maintain insurance against liabilities whether or not indemnification would be permitted by statute.

In its Certificate of Incorporation, the Company has included a provision that limits, to the fullest extent now or hereafter permitted by the DGCL, the personal liability of its directors to the Company or its stockholders for monetary damages arising from a breach of their fiduciary duties as directors. Under the DGCL as currently in effect, this provision limits a director's liability except where such director (i) breaches his duty of loyalty to the Company or its stockholders, (ii) fails to act in good faith or engages in intentional misconduct or a knowing violation of law, (iii) authorizes payment of an unlawful dividend or stock purchase or redemption as provided in Section 174 of the DGCL, or (iv) obtains an improper personal benefit. This provision does not prevent the Company or its stockholders from seeking equitable remedies, such as injunctive relief or rescission. If equitable remedies are found not to be available to stockholders in any particular case, stockholders may not have any effective remedy against actions taken by directors that constitute negligence or gross negligence.

The Certificate of Incorporation also includes provisions to the effect that (subject to certain exceptions) the Company shall, to the maximum extent permitted from time to time under the law of the State of Delaware, indemnify, and upon request shall advance expenses to, any director or officer to the extent that such indemnification and advancement of expenses is permitted under such law, as it may from time to time be in effect. In addition, the Bylaws require the Company to indemnify, to the full extent permitted by law, any director, office, employee or agent of the Company for acts which such person reasonably believes are not in violation of the Company's corporate purposes as set forth in the Certificate of Incorporation. At present, the DGCL provides that, in order to be entitled to indemnification, an individual must have acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the Company's best interests.

Reference is made to Item 9 below for the Company's undertakings with respect to liabilities arising under the Securities Act.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Not applicable.

ITEM 8. EXHIBITS

- | No. | Description |
|-------|--|
| 4.1* | Form of Stock Option Agreement. |
| 4.2 | Amended and Restated 1996 Stock Option Plan (incorporated by reference to the attachment to the Company's Proxy Statement previously filed on October 6, 2000). |
| 5.1* | Opinion of Eiseman Levine Lehrhaupt & Kakoyiannis, P.C. regarding legality of securities being registered. |
| 23.1* | Consent of Radin Glass & Co., LLP independent registered public accounting firm. |
| 23.2* | Consent of Eiseman Levine Lehrhaupt & Kakoyiannis, P.C. (contained in Exhibit 5.1). |
| 24.1* | No person has signed this Registration Statement under a power of attorney. A power of attorney relating to the signing of amendments hereto is incorporated in the signature page hereof. |

* Filed herewith

ITEM 9. UNDERTAKINGS.

(1) The undersigned Registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement to:

(i) Include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) Reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) Include any additional or changed material information on the plan of distribution;

Provided, however, that the undertakings set forth in paragraphs (a)(1)(i) and (a)(1)(ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to section 13

or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this Registration Statement.

(b) That, for the purpose of determining liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement of the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(2) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on October 14, 2009.

NETWORK-1 SECURITY SOLUTIONS, INC.

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

KNOW ALL MEN BY THESE PRESENTS, that each director and officer whose signature appears below constitutes and appoints Corey M. Horowitz his true and lawful attorney-in-fact and agent, with full power and substitution and re-substitution, to sign in any and all capacities any and all amendments or post-effective amendments to this Registration Statement on Form S-8 and to file the same with all exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission, granting to such attorney-in-fact and agent, full power and authority to do all such other acts and execute all such other documents as he may deem necessary or desirable in connection with the foregoing, as fully as the undersigned might or could do in person, hereby ratifying and confirming all that such attorney-in-fact and agent may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

| Signature | Title | Date |
|--|--|------------------|
| /s/ Corey M. Horowitz Corey M. Horowitz | Chairman and Chief Executive Officer (principal executive officer) | October 14, 2009 |
| /s/ David C. Kahn David C. Kahn | Chief Financial Officer (principal financial and accounting officer) | October 14, 2009 |
| /s/ Robert Pons Robert Pons | Director | October 14, 2009 |
| /s/ Laurent Ohana Laurent Ohana | Director | October 14, 2009 |

INDEX TO EXHIBITS

| No. | Description |
|-------|--|
| 4.1* | Form of Stock Option Agreement. |
| 4.2 | Amended and Restated 1996 Stock Option Plan (incorporated by reference to the attachment to the Company's Proxy Statement previously filed on October 6, 2000). |
| 5.1* | Opinion of Eiseman Levine Lehrhaupt & Kakoyiannis, P.C. regarding legality of securities being registered. |
| 23.1* | Consent of Radin Glass & Co., LLP independent certified public accountants. |
| 23.2* | Consent of Eiseman Levine Lehrhaupt & Kakoyiannis, P.C. (contained in Exhibit 5.1). |
| 24.1* | No person has signed this Registration Statement under a power of attorney. A power of attorney relating to the signing of amendments hereto is incorporated in the signature page hereof. |

* Filed herewith

