REGISTRATION NO.: 333-59617

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

AMENDMENT NO. 2 TO FORM SB-2 REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

NETWORK-1 SECURITY SOLUTIONS, INC.

(Name of small business issuer in its charter)

<TABLE>

<S><C>

7372

**DELAWARE** DELAWARE 7372
(State or Other Jurisdiction of (Primary Standard Industrial

Incorporation or Organization) Classification Code Number)

<C>

11-3027591 (I.R.S. Employer Identification Number)

</TABLE>

NETWORK-1 SECURITY SOLUTIONS, INC.

70 Walnut Street

Wellesley Hills, Massachusetts 02481

(781) 239-8280

(Address and Telephone Number of Registrant's Principal Executive Offices)

AVI A. FOGEL

President and Chief Executive Officer Network-1 Security Solutions, Inc. 70 Walnut Street Wellesley Hills, Massachusetts 02481 (781) 239-8280

(Name, Address and Telephone Number of Agent for Service of Process)

SAM SCHWARTZ, ESQ.
Bizar Martin & Taub, LLP
1350 Avenue of the Americas
New York, New York 10019
20 (212) 265-8600
21 2958

ROBER1 J. ...
Tenzer Greenblatt LLP
The Chrysler Building
405 Lexington Avenue
New York, New York 10174
Telephone: (212) 885-5000 ROBERT J. MITTMAN, ESQ.

APPROXIMATE DATE OF PROPOSED SALE TO THE PUBLIC:

As soon as practicable after the effective date of this Registration Statement.

pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. //[ ]
If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement
for the same offering. //[ ]
If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. //[
If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. //[ ]
CALCULATION OF REGISTRATION FEE
<table> <caption></caption></table>
PROPOSED PROPOSED MAXIMUM
MAXIMUM AGGREGATE  TITLE OF EACH CLASS OF SECURITIES BEING REGISTERED  SS  AMOUNT TO BE OFFERING PRICE OFFERING PRICE REGISTERED PER SHARE (1) (1)  SS  CS  CS  CS
Common Stock, par value \$.01 per share
<caption></caption>
AMOUNT OF  TITLE OF EACH CLASS OF REGISTRATION SECURITIES BEING REGISTERED FEE  <\$> <c> Common Stock, par value \$.01 per share</c>
Total
(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) of the Securities Act of 1933, as amended.
(2) Includes 255,000 shares of Common Stock issuable upon exercise of an option granted to the Underwriter to cover over-allotments of shares, if any.
(3) Pursuant to Rule 416, this Registration Statement also registers such indeterminate number of shares as may become issuable pursuant to the anti-dilution provisions of the Underwriter's Warrants.
(4) No fee due pursuant to Rule 457(g).

(5) Fee previously paid.

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THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

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#### CROSS-REFERENCE SHEET

<TABLE>

FORM SB-2 ITEM NUMBER AND CAPTION

HEADING IN PROSPECTUS

<C> <S>

<C>

1. Front of Registration Statement and Outside Front

Cover of Prospectus...... Outside Front Cover of Prospectus

2. Inside Front and Outside Back Cover Pages of

Prospectus...... Inside Front and Outside Back Cover

- 3. Summary Information and Risk Factors...... Prospectus Summary; Risk Factors
- 4. Use of Proceeds ...... Use of Proceeds
- 5. Determination of Offering Price...... Risk Factors; Underwriting
- 6. Dilution; Risk Factors
- 7. Selling Security Holders...... Not Applicable
- 8. Plan of Distribution...... Outside Front Cover Page of Prospectus
- 9. Legal Proceedings..... Business
- 10. Directors, Executive Officers, Promoters and Control

Persons...... Risk Factors; Management

- 11. Security Ownership of Certain Beneficial Owners and
  - Management...... Principal Stockholders
- 12. Description of Securities...... Description of Securities
- 13. Interest of Named Experts and Counsel...... Legal Matters; Experts
- 14. Disclosure of Commission Position on Indemnification

for Securities Act Liabilities...... Description of Securities

- 15. Organization Within Last Five Years...... Business; Certain Transactions
- 16. Description of Business...... Business
- 17. Management's Discussion and Analysis or Plan of

Operation...... Management's Discussion and Analysis of Financial

Condition and Results of Operations

18. Description of Property...... Prospectus Summary; Risk Factors; Discussion and Analysis of Financial Results of Operations;

Business

- 19. Certain Relationships and Related Transactions...... Certain Transactions
- 20. Market for Common Equity and Related Stockholder

Matters...... Risk Factors; Dilution; Management; Shares Eligible

for Future Sale

- 22. Financial Statements..... Financial Statements
- 23. Change in and Disagreements with Accountants on

Accounting and Financial Disclosure...... Not Applicable

# </TABLE>

INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

PRELIMINARY PROSPECTUS DATED OCTOBER 22, 1998

SUBJECT TO COMPLETION

## [LOGO]

## COMMON STOCK

Prior to this offering, there has been no public market for the Common Stock and there can be no assurance that any such market will develop. It is anticipated that the Common Stock will be quoted on the Nasdaq SmallCap Market under the symbol "NSSI." For a discussion of the factors considered in determining the initial public offering price, see "Underwriting."

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THE SECURITIES OFFERED HEREBY ARE SPECULATIVE AND INVOLVE A HIGH DEGREE OF RISK AND IMMEDIATE SUBSTANTIAL DILUTION AND SHOULD NOT BE PURCHASED BY INVESTORS WHO CANNOT AFFORD THE LOSS OF THEIR ENTIRE INVESTMENT. SEE "RISK FACTORS" COMMENCING ON PAGE 7 AND "DILUTION" ON PAGE 21.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

<TABLE> <CAPTION> **PRICE** UNDERWRITING **PROCEEDS** TO DISCOUNTS AND **PUBLIC** COMMISSIONS(1) COMPANY(2) <S> <C> <C> \$6.00 Per Share..... \$.60 \$5.40 \$9,180,000 Total(3)......\$10,200,000 \$1,020,000 </TABLE>

- (1) In addition, the Company has agreed to pay to the Underwriter a 3% nonaccountable expense allowance and to sell to the Underwriter warrants (the "Underwriter's Warrants") to purchase up to 170,000 shares of Common Stock. The Company has also agreed to indemnify the Underwriter against certain liabilities under the Securities Act of 1933, as amended. See "Underwriting."
- (2) Before deducting expenses estimated at \$1,035,000, including the Underwriter's nonaccountable expense allowance in the amount of \$306,000 (\$351,900 if the Underwriter's over-allotment option is exercised in full), payable by the Company.
- (3) The Company has granted the Underwriter an option, exercisable within 45 days from the date of this Prospectus, to purchase up to an additional 255,000 shares of Common Stock on the same terms as set forth above, solely for the purpose of covering over-allotments, if any. If the Underwriter's over-allotment option is exercised in full, the price to public, underwriting discounts and commissions, and proceeds to Company will be \$11,730,000, \$1,173,000 and \$10,557,000, respectively. See "Underwriting."

The shares of Common Stock are being offered, subject to prior sale, when, as and if delivered to, and accepted by the Underwriter and subject to approval of certain legal matters by counsel and to certain other conditions. The Underwriter reserves the right to withdraw, cancel or modify the offering and to reject any order in whole or in part. It is expected that delivery of certificates representing the shares will be made against payment therefor at the offices of the Underwriter, 650 Fifth Avenue, New York, New York 10019, on or about , 1998.

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#### WHALE SECURITIES CO., L.P.

The date of this Prospectus is , 1998 [GATEFOLD COVER]

[GRAPHIC ILLUSTRATING DEPLOYMENT OF THE COMPANY'S FIREWALL/PLUS PRODUCTS THROUGHOUT AN ENTERPRISE'S COMPUTER NETWORK, OFFERING PROTECTION FOR SUCH NETWORKS AGAINST INTERNAL AND EXTERNAL SECURITY THREATS.]

The Company's FIREWALL/PLUS family of security software products enables an organization to protect and secure its computer networks from internal and external security threats. Specific features include:

ENTERPRISE-WIDE DEPLOYMENT. Unlike most other firewall solutions which focus on an enterprise's connection to the Internet, FIREWALL/PLUS may be used throughout the enterprise; as a perimeter firewall to control access to and from the Internet, between internal networks to protect the network from attacks from within, and on application servers and clients PCs to protect data.

MULTI-PROTOCOL CAPABILITY. FIREWALL/PLUS provides multi-protocol filtering not available from network security products offered by other firewall vendors. FIREWALL/PLUS filters TCP/IP plus all other commonly used network transport protocols, such as IPX, SNA, DECnet and NetBEUI.

MULTI-LAYER SECURITY. FIREWALL/PLUS' Interceptor Shim and security filter engine technology introduce a security layer between the network hardware drivers and the Windows NT operating system by filtering all network traffic before it reaches Windows NT.

ADVANCED FILTERING SYSTEM. FIREWALL/PLUS incorporates frame, packet, application layer, proxy, and stateful inspection filtering capabilities. The Company believes that its hybrid approach to filtering allows the Company to offer a firewall product that maximizes security without sacrificing performance.

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FIREWALL/PLUS is a trademark of the Company. All other trademarks or tradenames referred to in this Prospectus are the property of their respective owners.

CERTAIN PERSONS PARTICIPATING IN THIS OFFERING MAY ENGAGE IN TRANSACTIONS ON NASDAQ, IN THE OVER-THE-COUNTER MARKET OR OTHERWISE WHICH STABILIZE, MAINTAIN OR OTHERWISE AFFECT THE PRICE OF THE COMMON STOCK. SPECIFICALLY, THE UNDERWRITER MAY OVER-ALLOT IN CONNECTION WITH THE OFFERING AND MAY BID FOR AND PURCHASE SHARES OF COMMON STOCK IN THE OPEN MARKET. FOR A DESCRIPTION OF THESE ACTIVITIES, SEE "UNDERWRITING."

[INSIDE GATEFOLD]

[FOUR PICTURES IN CLOCKWISE ORDER AS FOLLOWS]

[GRAPHIC ILLUSTRATING DEPLOYMENT OF THE COMPANY'S FIREWALL/PLUS ENTERPRISE VERSION WHICH RESIDES ON THE PERIMETER OF A COMPUTER NETWORK OFFERING A BARRIER BETWEEN THE ENTERPRISE AND THE INTERNET.]

[The following text appears to the right of the graphic.]

- Sits on the perimeter of a network, offering a barrier between the enterprise and the Internet.
- Incorporates Virtual Private Network (VPN) technology to enable secure communications between networks across the Internet, utilizing all commonly used network transport protocols.
- May be operated in a transparent mode and therefore cannot be identified for attack.

[GRAPHIC ILLUSTRATING DEPLOYMENT OF THE COMPANY'S FIREWALL/PLUS ENTERPRISE VERSION BEING USED AS AN INTERNAL GATEWAY SECURITY DEVICE TO PROTECT SUB-NETWORKS FROM UNAUTHORIZED ATTACK ORIGINATING FROM OTHER SUB-NETWORKS ON THE NETWORK.]

[The following text appears to the right of the graphic.]

- Controls access by users to sub-networks throughout the enterprise network.
- Protects against attacks originating from within the internal enterprise network, where security breaches often originate.
- Supports multiple network transport protocols, including IP, IPX, SNA, DECnet, and NetBEUI.

[GRAPHIC ILLUSTRATING DEPLOYMENT OF THE COMPANY'S FIREWALL/PLUS CLIENT VERSION, WHICH PROTECTS A WINDOWS NT WORKSTATION AGAINST INTERNAL AND EXTERNAL NETWORK ATTACKS.]

[The following text appears to the right of the graphic.]

- Protects the Windows NT workstation on which it resides against internal and external network attacks.
- Protects highly sensitive Windows NT workstations (e.g. CEO, human resources, payroll and accounting).
- Supports multi-protocol environments commonly used in enterprise networks.

[GRAPHIC ILLUSTRATING DEPLOYMENT OF THE COMPANY'S FIREWALL/PLUS SERVER VERSION WHICH RESIDES ON A WINDOWS NT APPLICATION SERVER PREVENTING UNAUTHORIZED ACCESS BY INTERNAL NETWORK USERS.]

[The following text appears to the right of the graphic.]

- Installs directly on a Windows NT application server without interfering with the normal operation of the server.
- Prevents unauthorized access to a secured Windows NT server by internal users, where security breaches often originate.
- Protects sensitive enterprise systems such as database servers, key escrow securities, digital certificate servers and authentication servers.
- Security provided for all commonly used network transport protocols.

  PROSPECTUS SUMMARY

THE FOLLOWING SUMMARY IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO THE MORE DETAILED INFORMATION AND FINANCIAL STATEMENTS, INCLUDING THE NOTES THERETO, APPEARING ELSEWHERE IN THIS PROSPECTUS. EXCEPT AS OTHERWISE INDICATED, ALL INFORMATION IN THIS PROSPECTUS, INCLUDING PER SHARE DATA AND INFORMATION RELATING TO THE NUMBER OF SHARES OUTSTANDING, (I) HAS BEEN ADJUSTED TO REFLECT A 1-FOR-1.61083 REVERSE STOCK SPLIT OF THE COMMON STOCK EFFECTED ON JULY 20, 1998, (II) GIVES EFFECT TO THE CONVERSION OF THE OUTSTANDING SHARES OF SERIES B CONVERTIBLE PREFERRED STOCK INTO 310,399 SHARES OF COMMON STOCK, THE ISSUANCE OF 562,836 SHARES OF SERIES C CONVERTIBLE PREFERRED STOCK (THE "SERIES C PREFERRED STOCK") IN EXCHANGE FOR THE CANCELLATION OF PROMISSORY NOTES, INCLUDING ACCRUED INTEREST, OF \$2,954,888, AND THE ISSUANCE OF AN AGGREGATE OF 64,167 SHARES OF COMMON STOCK IN CONNECTION WITH THE ACQUISITION OF COMMHOME SYSTEMS CORPORATION (THE "COMMHOME ACQUISITION") AND SATISFACTION OF CERTAIN INDEBTEDNESS OF COMMHOME, ALL UPON CONSUMMATION OF THIS OFFERING, AND (III) ASSUMES THE CONVERSION OF 562,836 SHARES OF SERIES C PREFERRED STOCK INTO 562,836 SHARES OF COMMON STOCK AND NO EXERCISE OF THE UNDERWRITER'S OVER-ALLOTMENT OPTION TO PURCHASE UP TO 255,000 ADDITIONAL SHARES OF COMMON STOCK. SEE "BUSINESS--COMMHOME SYSTEM CORPORATION ACQUISITION," "CERTAIN TRANSACTIONS," "DESCRIPTION OF SECURITIES--PREFERRED STOCK" AND NOTE J TO NOTES TO FINANCIAL STATEMENTS.

CERTAIN STATEMENTS CONTAINED HEREIN UNDER "PROSPECTUS SUMMARY," "RISK FACTORS," "USE OF PROCEEDS," "MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS" AND "BUSINESS" INCLUDING, WITHOUT LIMITATION, STATEMENTS CONCERNING THE COMPANY'S STRATEGY AND GROWTH PLANS, CONTAIN CERTAIN FORWARD-LOOKING STATEMENTS CONCERNING THE COMPANY'S OPERATIONS, ECONOMIC PERFORMANCE AND FINANCIAL CONDITION. BECAUSE SUCH STATEMENTS INVOLVE RISKS AND UNCERTAINTIES, ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THOSE EXPRESSED OR IMPLIED BY SUCH FORWARD LOOKING STATEMENTS. FACTORS THAT COULD

# CAUSE SUCH DIFFERENCES INCLUDE, BUT ARE NOT LIMITED TO, THOSE DISCUSSED UNDER "RISK FACTORS."

#### THE COMPANY

Network-1 Security Solutions, Inc. (the "Company") develops, markets, licenses and supports a family of network security software products designed to provide comprehensive security to computer networks, including Internet based systems and internal networks and computing resources. The Company's FIREWALL/PLUS family of security software products enables an organization to protect its computer networks from internal and external attacks and to secure organizational communications over such internal networks and the Internet. The Company also offers its customers a full range of consulting services in network security and network design and support in order to build, maintain and enhance customer relationships and increase the demand for its software products.

The FIREWALL/PLUS family of security solutions is designed to protect against Internet and intranet (internal networks utilizing Internet technology and applications based upon TCP/IP--the Internet network transport protocol) based security threats and to address security needs that arise from within internal networks that often utilize other network transport protocols besides TCP/IP including, among others, Novell's IPX, Digital Equipment's DECnet and IBM's SNA. The Company's FIREWALL/PLUS family of firewall products operates on the Microsoft Windows NT operating system platform. FIREWALL/PLUS' proprietary Interceptor Shim and filter engine software technology, with its unique ability to handle and filter all commonly used network transport protocols, provide organizations with a highly secure and flexible security solution. Additionally, unlike most other firewall solutions which focus on an enterprise's connection to the Internet, the FIREWALL/PLUS solution can be deployed throughout the enterprise; at the perimeter to control access to and from the Internet, between internal networks and on application servers and desktop PCs to protect data residing on such servers and PCs. FIREWALL/PLUS for Windows NT received the 1997 Internet and Electronic Commerce Conference award for "Best Intranet Solution" and the 1997 ENT Magazine Readers Choice Award for "Best NT Firewall."

As a result of the explosive growth in network computing and Internet use (as well as use of intranets and extranets), protection of an organization's network and data has become a significant economic

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concern for businesses. According to the 1997 Annual Information Week/Ernst & Young LLP Information Security Survey of information technology managers and professionals, 42% of the respondents reported malicious acts from external sources, as compared to 16% in the prior year, and 43% of the respondents reported malicious acts by employees as compared to 29% in the prior year. According to FBI estimates, U.S. companies suffer estimated losses of \$5 to \$10 billion per year as a result of unauthorized access to information and data. According to the 1998 Computer Security Institute/FBI Computer Crime and Security Survey, 44% of the respondents reported unauthorized access by employees. The Company believes that securely segmenting internal network areas and computing resources from unauthorized access will become paramount to insuring the integrity of both the internal network and an organization's intranet and extranet (intranets which allow access to one or more users outside of the internal network) resources.

In a Windows NT based environment, it is typical for multiple network transport protocols to co-exist, as Windows NT comes pre-equipped with TCP/IP, IPX (Novell), NetBEUI (LAN Manager) and AppleTalk. In addition, certain applications require the use of non-TCP/IP protocols to operate between sub-networks within a network. The Company believes that multiple network transport protocols will remain prevalent in computing environments because of the large installed base of non-TCP/IP based computer systems and applications. As a result, the Company believes that its FIREWALL/PLUS technology offers significant advantages as a security product for computer networks because of its unique ability to filter all commonly used network transport protocols and reside in multiple locations throughout an organization's network.

The Company intends to pursue an aggressive growth strategy and to focus its efforts on marketing its FIREWALL/PLUS family of network security products. Key elements of the Company's strategy are to:

- Provide comprehensive network security solutions by developing, marketing and supporting a family of network security products to address a broad

range of security issues confronting computer networks and computing, including concerns arising from allowing access to the Internet as well as concerns relating to the security of internal networks.

- Emphasize internal network security because of the ability of FIREWALL/PLUS to filter a multitude of network transport protocols which are common in many organizations. The Company intends to devote a significant portion of the proceeds of this offering for sales and marketing toward educating potential end users and third-party distributors as to the need to protect networks and computing resources from unauthorized access and attacks from within an internal network and the capabilities and benefits of the Company's products.
- Implement a marketing plan which includes a multi-channel distribution strategy which emphasizes establishing and maintaining third-party distributor relationships with systems integrators, VARs, OEMs and resellers in the United States and internationally.
- Increase sales of FIREWALL/PLUS by leveraging relationships with consulting clients.

Since its inception, the Company has incurred significant losses. The future success of the Company is largely dependent upon its FIREWALL/PLUS family of software products achieving market acceptance. There can be no assurance that the Company will be able to successfully implement its marketing strategy, achieve significant market acceptance of its FIREWALL/PLUS products or achieve profitable operations.

The Company was incorporated under the laws of the State of Delaware in July 1990. Unless the context requires otherwise, all references to the Company include the Company's wholly-owned subsidiary, Network-1 Acquisition Corp., which was formed to acquire CommHome Systems Corporation upon the consummation of this offering. The Company's executive offices are located at 70 Walnut Street, Wellesley Hills, Massachusetts 02481 and its telephone number at that address is (781) 239-8280. The Company intends to relocate its executive offices to a new facility in the Boston, Massachusetts area following the consummation of this offering. The Company's website can be found at http://www.network-1.com.

#### 4 THE OFFERING

<table></table>	
<s></s>	<c></c>
Common Stock offer	red 1,700,000 shares
Common Stock to be after the offering	e outstanding 
Use of Proceeds	The Company intends to use the net proceeds of this offering for sales and marketing; software development; payment of trade payables; repayment of indebtedness; purchase of computer equipment; establishing a new office facility; and the balance for working capital and general corporate purposes.
Risk Factors	The securities offered hereby involve a high degree of risk and immediate substantial dilution to new investors and should not be purchased by investors who cannot afford the loss of their entire investment. See "Risk Factors" and "Dilution."
Proposed Nasdaq Sn symbol	

  ||  | - |
(1) Includes 562,836 shares of Common Stock issuable upon conversion of the 562,836 shares of Series C Preferred Stock to be issued in exchange for the

cancellation of promissory notes, including accrued interest, of \$2,954,888 upon the consummation of this offering. Such shares of Common Stock will be outstanding only if the holders elect to convert such shares into shares of Common Stock. If the Underwriter exercises the over-allotment option in whole or in part, the Company will use 50% of the net proceeds therefrom to repay a portion of the promissory notes and, as a result, less shares of Series C Preferred Stock will be issued. If the Underwriter exercises the over-allotment option in full, \$665,550 of the net proceeds therefrom will be used to repay a portion of the promissory notes and 126,771 shares of Series C Preferred Stock will not be issued. See "Certain Transactions" and "Description of Securities---Preferred Stock."

(2) Does not include: (i) 170,000 shares of Common Stock reserved for issuance upon exercise of the Underwriter's Warrants; (ii) 855,216 shares of Common Stock reserved for issuance upon exercise of stock options granted under the Company's 1996 Stock Option Plan (the "Stock Option Plan"); (iii) 194,784 shares of Common Stock reserved for issuance upon exercise of stock options available for future grant under the Stock Option Plan; and (iv) 630,886 shares of Common Stock reserved for issuance upon exercise of other outstanding warrants and options. See "Management--Stock Option Plan," "Description of Securities," "Certain Transactions" and "Underwriting."

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NOTICE TO CALIFORNIA INVESTORS: Each purchaser of Common Stock in California must be an "accredited investor" as that term is defined in Rule 501(a) of Regulation D promulgated under the Securities Act of 1933, as amended (the "Securities Act"), or satisfy one of the following suitability standards; (i) minimum gross income of \$65,000 and a net worth (exclusive of home, home furnishings and automobiles) of \$250,000; or (ii) minimum net worth (exclusive of home, home furnishings and automobiles) of \$500,000.

NOTICE TO NEW JERSEY, OHIO, SOUTH CAROLINA AND WASHINGTON INVESTORS: Each purchaser of Common Stock in New Jersey, Ohio, South Carolina and Washington must be an "accredited investor" as that term is defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

#### 5 SUMMARY FINANCIAL INFORMATION

The summary financial information set forth below is derived from and should be read in conjunction with the financial statements, including the notes thereto, and "Management's Discussion and Analysis of Financial Condition and Results of Operations," contained elsewhere in this Prospectus.

#### STATEMENT OF OPERATIONS DATA:

<TABLE> <CAPTION>

# YEAR ENDED DECEMBER 31, SIX MONTHS ENDED JUNE 30,

	1996	1997	7 1997	1998	
<\$>	<c></c>	<c></c>	<c></c>	<c></c>	
Total revenues	\$	1,027,000	\$ 2,369,00	0 \$ 1,427,0	000 \$ 902,000
Loss from operations		(4,239,0	000) (1,837,0	000) (640,	,000) (1,552,000)
Net loss	(4,4	99,000)	(2,390,000)	(781,000)	(1,990,000)
Loss per share (1)		(2.46)	(1.29)	(.40)	(1.17)
Weighted average number of shares					
outstanding	1,	,825,163	1,855,244	1,934,334	1,699,120

  |  |  |  |  |

# BALANCE SHEET DATA:

	DECEMBER	31, 1997 Л	JNE 30, 1998
	ACTUAL	ACTUAL	AS ADJUSTED(2)
<s></s>	<c></c>	<c> &lt;(</c>	>
Cash and cash equivalents	\$	60,000 \$ 6	634,000 \$ 8,349,000
Working capital (deficit)		661,000) (2,4	29,000) 8,187,000
Total assets	2,404,	000 3,129,00	00 10,494,000
Total liabilities		000 3,707,00	00 806,000
Accumulated deficit	(7,	470,000) (9,4	60,000) (10,758,000)
Total stockholders' equity (deficit)		(75,000)	578,000) 9,688,000


- (1) See Notes A and B to Notes to Financial Statements for an explanation of shares used in net loss per share calculations.
- (2) Gives effect to (i) the sale of 1,700,000 shares of Common Stock offered hereby and the application of the estimated net proceeds therefrom, including the repayment of promissory notes, plus accrued interest, of \$585,000, (ii) the issuance of 562,836 shares of Series C Preferred Stock in exchange for the cancellation of promissory notes, plus accrued interest, of \$2,954,888, (iii) the incurrence of aggregate non-cash charges estimated to be \$668,000 relating to the amortization of the debt discount on the promissory notes described in (i) and (ii) above, upon consummation of this offering, (iv) the issuance of an aggregate of 64,167 shares of Common Stock, upon consummation of this offering, in connection with the CommHome Acquisition and the satisfaction of an aggregate of \$105,000 of indebtedness of CommHome owed to certain officers of the Company, and a charge related to the CommHome Acquisition for purchased research and development of \$469,000 and (v) the issuance of 13,220 shares of Common Stock in October 1998 for services rendered valued at \$79,320 (such adjustment, together with the adjustments described in (ii) through (iv) above, collectively the "Offering Adjustments"). See "Use of Proceeds," "Business--CommHome Systems Corporation Acquisition," "Certain Transactions" and "Capitalization."

#### 6 RISK FACTORS

AN INVESTMENT IN THE SHARES OF COMMON STOCK OFFERED HEREBY IS SPECULATIVE AND INVOLVES A HIGH DEGREE OF RISK AND SHOULD NOT BE PURCHASED BY ANYONE WHO CANNOT AFFORD THE LOSS OF THEIR ENTIRE INVESTMENT. EACH PROSPECTIVE INVESTOR SHOULD CAREFULLY CONSIDER THE FOLLOWING RISK FACTORS AS WELL AS THE OTHER INFORMATION SET FORTH IN THIS PROSPECTUS IN EVALUATING AN INVESTMENT IN THE SHARES OF COMMON STOCK OFFERED HEREBY. THIS PROSPECTUS CONTAINS FORWARD-LOOKING STATEMENTS BASED UPON CURRENT EXPECTATIONS THAT INVOLVE RISKS AND UNCERTAINTIES. THE COMPANY'S ACTUAL RESULTS AND THE TIMING OF CERTAIN EVENTS MAY DIFFER MATERIALLY FROM THOSE DISCUSSED IN SUCH FORWARD-LOOKING STATEMENTS AS A RESULT OF CERTAIN FACTORS, INCLUDING, BUT NOT LIMITED TO, THOSE SET FORTH IN THE FOLLOWING RISK FACTORS AND ELSEWHERE IN THIS PROSPECTUS.

LIMITED RELEVANT OPERATING HISTORY; SIGNIFICANT AND CONTINUING LOSSES; SIGNIFICANT ACCUMULATED DEFICIT; EXPLANATORY PARAGRAPH IN INDEPENDENT PUBLIC ACCOUNTANT'S REPORT RELATING TO THE COMPANY'S ABILITY TO CONTINUE AS A GOING CONCERN. Although the Company was organized in July 1990, it was engaged primarily in providing network consulting and training services through 1994 and did not commence marketing of its first FIREWALL/PLUS product until June 1995. Accordingly, the Company has a limited relevant operating history as a software developer upon which an evaluation of its prospects and future performance can be made. Such prospects must be considered in light of the risks, expenses and difficulties frequently encountered in the operation and expansion of a new business and the shift from research and product development to commercialization of products based on rapidly changing technologies in a highly specialized and emerging market. Since inception, the Company has incurred significant net losses, including net losses of \$4,499,000, \$2,390,000 and \$1,990,000 for the years ended December 31, 1996, December 31, 1997 and the six months ended June 30, 1998, respectively. At June 30, 1998, the Company had an

accumulated deficit of \$9,460,000 and, since June 30, 1998, the Company has continued to incur significant and increasing losses. The Company will also incur aggregate non-cash charges upon consummation of this offering of approximately \$1,137,000 relating to (i) the amortization of debt discount with respect to \$3,250,000 principal amount promissory notes which will be repaid or cancelled in exchange for shares of Series C Preferred Stock, upon consummation of this offering and (ii) purchased research and development in connection with the CommHome Acquisition. In addition, the Company will incur additional non-cash charges of \$572,000 over the vesting period related to stock options issued in May 1998 to Avi A. Fogel, President and Chief Executive Officer of the Company. Inasmuch as the Company intends to increase its level of activities following the consummation of this offering and will be required to make significant up-front capital expenditures in connection with its sales and marketing and continuing research and product development efforts, the Company anticipates that losses will continue until such time, if ever, as the Company is able to attain sales levels sufficient to support its operations. There can be no assurance that the Company will ever achieve significantly increased revenues or profitable operations. The Company's independent auditors have included an explanatory paragraph in their report on the Company's financial statements for the years ended December 31, 1996 and December 31, 1997, stating that certain factors raise substantial doubt about the Company's ability to continue as a going concern. See "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Certain Transactions" and Financial Statements.

SIGNIFICANT CAPITAL REQUIREMENTS; WORKING CAPITAL DEFICIT; DEPENDENCE ON PROCEEDS FOR PLAN OF OPERATION; CONTINUING NEED FOR ADDITIONAL FINANCING. The

Company's capital requirements have been and will continue to be significant, and its cash requirements have been exceeding its cash flow from operations. At June 30, 1998, the Company had a working capital deficit of \$2,429,000. As a result, the Company has been substantially dependent on private sales of equity and debt securities to fund its operations. The Company is dependent on the proceeds of this offering to implement its business plan and finance its working capital requirements. The Company anticipates, based on currently proposed plans and assumptions relating to the implementation of its business plan (including the timetable of, costs and expenses associated with, and success of, its marketing efforts), that the net proceeds of this offering, together with projected revenues from operations, will be sufficient to satisfy the Company's operations and capital requirements for

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approximately twelve months following the consummation of this offering. There can be no assurance, however, that such funds will not be expended prior thereto due to unanticipated changes in economic conditions or other unforeseen circumstances. In the event the Company's plans change or its assumptions change or prove to be inaccurate (due to unanticipated expenses, difficulties, delays or otherwise) or the net proceeds of this offering and projected revenues otherwise prove to be insufficient to fund the implementation of the Company's business plan or working capital requirements, the Company could be required to seek additional financing sooner than currently anticipated. The Company has no current arrangements with respect to any additional financing. Consequently, there can be no assurance that any additional financing will be available to the Company when needed, on commercially reasonable terms or at all. Any inability to obtain additional financing when needed would have a material adverse effect on the Company, requiring it to curtail and possibly cease its operations. In addition, any additional equity financing may involve substantial dilution to the interests of the Company's then existing stockholders. See "Use of Proceeds" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

UNCERTAINTY OF MARKET ACCEPTANCE OF PRODUCTS. The future success of the Company is largely dependent upon market acceptance of its FIREWALL/PLUS family of software products. The network security market is at an early stage of development and is rapidly evolving. Accordingly, demand for the Company's products and market acceptance are subject to a high level of uncertainty. While the Company believes that its FIREWALL/PLUS family of software products offers advantages over competing products for network security, revenue from licenses of FIREWALL/PLUS products since introduction (June 1995) through June 30, 1998 have been only \$2,561,000, including a non-refundable prepaid royalty of \$500,000. There can be no assurance that FIREWALL/PLUS will gain market acceptance. Revenues from such products depend on a number of factors, including the influence of market competition, technological changes in the network

security market, the Company's ability to design, develop and introduce enhancements on a timely basis, and the ability of the Company to successfully establish and maintain distribution channels. Moreover, there are commercially available competitive products, offered by companies with significantly greater resources than the Company, which have comparable or more favorable price characteristics and which may be perceived to have performance characteristics comparable to the Company's products. In addition, the Company anticipates the introduction of additional competitive products, particularly if the demand for network security products continues to increase. Existing and future competition may make it more difficult to achieve market acceptance for FIREWALL/PLUS. Additionally, potential customers may be reluctant to purchase the Company's products due to significant investments in other network security products. Consequently, although the Company intends to utilize a significant portion of the proceeds of this offering to expand its marketing and sales activities, there can be no assurance that such funds will be sufficient, that the Company's increased marketing efforts and expenditures will result in significant levels of revenue or that the FIREWALL/PLUS family of products will achieve significant market acceptance. Moreover, a highly publicized breach of network security involving the Company's products could adversely affect public perception of, and confidence in, the Company's products. See "Use of Proceeds," "Business--Sales and Marketing" and "Business--Competition."

LIMITED MARKETING CAPABILITIES AND EXPERIENCE; DEPENDENCE UPON THIRD-PARTY MARKETING ARRANGEMENTS. The Company has not yet undertaken significant marketing efforts relating to product commercialization, has limited marketing experience and has limited financial, personnel and other resources to undertake extensive marketing activities independently. Accordingly, the Company has relied and intends to continue to rely to a large extent on arrangements with third parties for the marketing and distribution of its products, including arrangements with VARs, systems integrators, resellers, distributors and OEMs. The Company has only recently entered into marketing arrangements with most of its distributors and, to date, most of such arrangements have generated limited revenues. For the year ended December 31, 1997 and the six months ended June 30, 1998, the Company's five largest distributors accounted for an aggregate of approximately 28% and 25% of the Company's revenues, respectively. Trusted Information Systems, Inc. ("TIS"), as a result of a \$500,000 non-refundable pre-paid royalty, Electronic Data Systems

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Corporation ("EDS") and Atlantic Richfield Company and related entities ("ARCO") accounted for 21%, 15% and 13%, of the Company's revenues, respectively, for the year ended December 31, 1997, and The City of Hope, EDS and The Sabre Group, Inc. accounted for 32%, 17% and 11% of the Company's revenues, respectively, for the six months ended June 30, 1998. In October 1998, Network Associates, Inc. (which acquired TIS) terminated the license agreement with the Company effective December 31, 1998. Based on information provided by Network Associates, Inc., the Company does not anticipate receiving any additional royalties. The Company's prospects will be dependent upon its ability to develop and maintain strategic marketing relationships with additional third parties and upon the marketing and distribution efforts of its third-party distributors. While the Company believes that the third parties with which it enters into marketing arrangements have an economic incentive to commercialize the Company's products, the time and resources devoted to these activities will be contributed and controlled by such third parties. Many of the Company's third-party distributors represent various product lines, including those competing with the Company's products. A decline in the prospects of key distributors could have an adverse effect on the Company. There can be no assurance that the Company will be able, for financial or other reasons, to finalize any additional third-party distribution or marketing arrangements, maintain its existing marketing and distribution arrangements or that any such arrangements will result in the successful commercialization of the Company's products. See "Business--Sales and Marketing."

COMPETITION. The network security market in general, and the firewall product market in particular, is characterized by intense competition and rapidly changing business conditions, customer requirements and technologies. The Company believes that the principal competitive factors affecting the market for network security products include security effectiveness, scope of product

offerings, name recognition, product features, distribution channels, price, ease of use and customer service and support. Currently, the Company's principal competitors include AXENT Technologies Inc., Bay Networks, Inc. (a subsidiary of Northern Telecom Limited), CheckPoint Software Technologies, Ltd., Cisco Systems, Inc., Compaq Computer Corporation, Cyberguard Corp., International Business Machines Corporation, ISS Group, Inc., Microsoft Corporation, Network Associates, Inc. and Secure Computing Corporation. Due to the rapid expansion of the network security market, the Company may face competition from new entrants to the firewall product market. Most of the Company's current and potential competitors have longer operating histories, greater name recognition, larger installed customer bases and possess substantially greater financial, technical and marketing and other competitive resources than the Company. As a result, the Company's competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements or to devote greater resources to the promotion and sale of their products than the Company. While the Company believes that its firewall products do not compete against manufacturers of other types of security products (such as encryption and authentication products), there can be no assurance that potential customers will not perceive the products of such other companies as substitutes for the Company's products. In addition, certain of the Company's competitors may determine for strategic reasons to consolidate, to substantially lower the price of their network security products or to bundle their products with other products, such as hardware or other enterprise software products. Accordingly, it is possible that new competitors and alliances among competitors may emerge and rapidly acquire significant market share. There can be no assurance that the Company's current and potential competitors will not develop products that may be more effective than the Company's current or future products or that the Company's products would not be rendered obsolete or less marketable by evolving technologies or changing consumer demands or that the Company will otherwise be able to compete successfully. Increased competition for firewall products may result in price reductions and reduced gross margins and may adversely effect the Company's ability to gain market share, any of which would adversely affect the Company's business, operating results and financial condition. See "Business--Competition."

RAPID TECHNOLOGICAL CHANGE; POTENTIAL PRODUCT OBSOLESCENCE. The network security industry is characterized by rapid technological advances, increasingly sophisticated and changing customer requirements, frequent new product introductions and enhancements, new and continuously evolving network security threats and attack methodologies and evolving industry standards in computer hardware and software

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technology. As a result, the Company must continually change and improve its products in response to such advances and changes in operating systems, application software, computer and communications hardware, networking software, programming tools and computer language technology. The introduction of products embodying new technologies and the emergence of new industry standards may render existing products obsolete or unmarketable. The Company's future operating results will depend upon the Company's ability to enhance its current products and to develop and introduce new products on a timely basis that address the increasingly sophisticated needs of the marketplace and that keep pace with technological developments, new competitive product offerings and emerging industry standards. There can be no assurance that the Company will be successful in developing and marketing new products or product enhancements that respond to technological change and evolving industry standards and customer requirements, that the Company will not experience difficulties that could delay or prevent the successful development, introduction and marketing of these products, or that any new products and product enhancements will adequately meet the requirements of the marketplace and achieve market acceptance. In the event that the Company does not respond adequately to the need to develop and introduce new products or enhancements of existing products in a timely manner in response to changing market conditions or customer requirements, the Company's business, operating results and financial condition will be materially adversely affected. See "Business--Product Development."

UNPROVEN MARKET FOR INTERNAL NETWORK SECURITY PRODUCTS. Many of the Company's competitors in the firewall market have largely devoted their resources to the development and marketing of perimeter firewall products ("IP Firewalls") designed primarily to protect an internal network from internet based security threats or threats from within intranets. While TCP/IP is a

dominant network transport protocol, network environments often use other network transport protocols such as Novell's IPX, Digital Equipment's DECnet and IBM's SNA. The Company believes that the ability of the FIREWALL/PLUS technology to filter all commonly used network transport protocols and reside in multiple locations throughout the enterprise network offers significant advantages as a security product for internal networks. However, the Company's limited sales to date have not established that, in fact, this is a significant marketing advantage. The Company's future success depends in large part on the Company's ability to successfully market its technology and the increased awareness and demand in the market for the need to address security threats that arise from within internal networks which may require substantial marketing efforts and the expenditure of significant funds. Furthermore, firewall vendors and other vendors of network security products with substantially greater financial, technical and marketing resources than the Company may modify existing security products or develop new products which would address the internal network security market. The Company's failure to successfully implement marketing efforts emphasizing the internal network security market would have a material adverse effect on its business, financial condition and results of operations in the future. See "Business--Network-1 Strategy" and "Business--FIREWALL/PLUS Technology."

SIGNIFICANT FLUCTUATIONS IN QUARTERLY OPERATING RESULTS. The Company

anticipates significant quarterly fluctuations in its operating results in the future. The Company generally ships orders for commercial products as they are received and, as a result, does not have any material backlog. As a result, quarterly revenues and operating results depend on the volume and timing of orders received during the quarter, which are difficult to forecast. Operating results may also fluctuate on a quarterly basis due to factors such as the demand for the Company's products, purchasing patterns and budgeting cycles of customers, the introduction of new products and product enhancements by the Company or its competitors, market acceptance of new products introduced by the Company or its competitors and the size, timing, cancellation or delay of customer orders, including cancellation or delay in anticipation of new product introduction or enhancement. Therefore, comparisons of quarterly operating results may not be meaningful and should not be relied upon, nor will they necessarily reflect the Company's future performance. Because of the foregoing factors, it is likely that in some future quarters the Company's operating results will be below the expectations of public market analysts and investors. In such event, the price of the Common Stock

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would likely be materially adversely affected. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

PROPOSED EXPANSION; MANAGEMENT OF GROWTH; NEED FOR QUALIFIED PERSONNEL. Following the consummation of this offering, the Company intends to use a substantial portion of the proceeds to expand its current level of operations and expects to significantly increase the number of its employees. This growth will result in an increase in responsibilities placed upon the Company's management and will place added pressures on the Company's operating and financial resources. The Company's success will be dependent in part on its ability to manage its growth, recruit additional management personnel, expand its sales and marketing personnel and research and development staff, improve its operational and financial systems, expand its customer support functions and train, motivate and manage additional employees, monitor operations and control costs. Competition with respect to the recruiting of highly qualified personnel in the software industry is intense and many of the Company's competitors have significantly greater resources than the Company. The Company's ability to attract and assimilate new personnel will be critical to the Company's performance and there can be no assurance that the Company will be successful in attracting and retaining the personnel it requires to enhance its products, develop new products and conduct its operations successfully. Moreover, the Company may also use a portion of the net proceeds for the acquisition of businesses, technologies or products which it believes are complimentary to those of the Company, although there are currently no commitments or agreements with respect to any such acquisitions as of the date of this prospectus, except for the acquisition of CommHome. See "Business--CommHome Systems Corporation Acquisition."

LIMITED PROTECTION OF PROPRIETARY RIGHTS; RELIANCE ON TRADE SECRETS. The Company's success is substantially dependent on its proprietary technologies. The Company does not hold any patents and relies on copyright and trade secret laws, non-disclosure agreements with employees, distributors and customers,

including "shrink wrap" license agreements that are not signed by the customer, and technical measures to protect the ideas, concepts and documentation of its proprietary technologies and know-how to protect its intellectual property rights. Such methods may not afford complete protection, and there can be no assurance that third parties will not independently develop substantially equivalent or superior technologies or obtain access to the Company's technologies, ideas, concepts and documentation. In addition, there can be no assurance that any confidentiality agreements between the Company and its employees, distributors or customers will provide meaningful protection for the Company's proprietary information in the event of any unauthorized use or disclosure. Furthermore, the Company may be subject to additional risk as it enters into transactions in countries where intellectual property laws are not well developed or are poorly enforced. Legal protection of the Company's rights may be ineffective in such countries. The inability of the Company to protect its proprietary technologies could have a material adverse effect on the Company. The Company also licenses from a third-party certain proxy technology which is incorporated into its FIREWALL/PLUS products. The Company is dependent in part on its ability to continue to license such technology and any inability of the Company to be able to continue to utilize such technology either as a result of the Company's breach or the termination of the license agreement or otherwise, in the absence of similar available technologies, could have a material adverse effect on the Company.

The Company received a U.S. trademark registration for the FIREWALL/PLUS name in December 1996. Although the Company is not aware of any challenges to the Company's rights to use this trademark, there can be no assurance that the use of this mark would be upheld if challenged. See "Business--Proprietary Rights."

POTENTIAL INFRINGEMENT ON INTELLECTUAL PROPERTY RIGHTS OF OTHERS. Although the Company believes that its technologies and products have been developed independently and do not infringe upon the proprietary rights of others, there can be no assurance that the Company's technologies and products do not and will not so infringe or that third parties will not assert infringement claims against the Company in the future. The Company is not aware of any patent infringement charge or any violation of other proprietary rights

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claimed by any third party relating to the Company or the Company's products. In response to certain public statements made by CheckPoint Software Technologies, Ltd. related to a patented technology referred to as "stateful inspection" (the "Checkpoint Patent"), the Company retained patent counsel in April 1997 to review the Checkpoint Patent as compared to the Company's intellectual property and associated products. Based upon the opinion of the Company's intellectual property counsel, the Company does not believe that the CheckPoint Patent will have a material adverse effect on the Company. If, however, the Company's technologies or products were deemed to infringe upon the Checkpoint Patent, or if the Company's technologies or products were deemed to infringe upon the proprietary rights of other third parties, the Company could become liable for damages or be required to modify its products or to obtain a license. As the number of and variety of security products being offered continue to increase the functionality of such products may further overlap, which could result in increased infringement claims by software developers, including infringement claims against the Company with respect to future products. There can be no assurance that the Company would be able to modify its products or obtain a license in a timely manner, upon acceptable terms and conditions, or at all, or that the Company will have the financial or other resources necessary to defend a patent infringement or other proprietary rights infringement action. Failure to do any of the foregoing could have a material adverse effect on the Company, including possibly requiring the Company to cease marketing its products. See "Business--Proprietary Rights."

DEPENDENCE ON REVENUES FROM LIMITED PRODUCT LINE; NON-RECURRING REVENUES. Since 1996, a substantial portion of the Company's revenues have been derived from licenses of its FIREWALL/PLUS products. For the year ended December 31, 1997 and the six months ended June 30, 1998, revenues from FIREWALL/PLUS products accounted for approximately 60% and 35% of the Company's revenues, respectively. A decline in revenues from FIREWALL/PLUSproducts would have a material adverse effect on the Company. In addition, revenues from the Company's products are generally non-recurring in nature. There can be no assurance that the Company will not remain dependent upon non-recurring revenues from FIREWALL/PLUS products licensed to a limited number of customers, which revenues could constitute a considerable portion of the Company's revenues. See

"Management's Discussion and Analysis of Financial Condition and Results of Operations."

DEPENDENCE ON CONTINUED GROWTH OF THE INTERNET AND INTERNAL NETWORKS. Since the Company's products are designed to protect internal networks from unauthorized access and attacks via the Internet and from within internal networks, the Company's success is substantially dependent upon the widespread acceptance and use of the Internet, intranets and extranets as effective means of communication and commerce. Rapid growth in the use of and interest in the Internet, intranets and extranets is a recent phenomenon, and there can be no assurance that acceptance and use will continue to develop or that a sufficiently broad base of consumers will adopt and continue to use the Internet, intranets and extranets as means of communication and commerce. The Internet may not be accepted as a viable commercial marketplace for a number of reasons, including potentially inadequate development of the necessary network infrastructure or delayed development of enabling technologies and performance improvements. If use of the Internet does not continue to grow or grows more slowly than expected, if the infrastructure for the Internet does not effectively support growth that may occur, or if the Internet and online services do not become a viable commercial marketplace, market demand for the Company's products may not develop or be maintained. See "Business--Industry

FOCUS ON WINDOWS NT PLATFORM. Currently, the Windows NT operating system is the principal platform for the Company's FIREWALL/PLUS family of products. According to a recent International Data Corporation survey, Windows NT shipments are expected to assume a majority market share by 1999. While the Windows NT platform is perceived to have security weaknesses, many of the Company's competitors currently offer Windows NT based firewalls and the Company believes that the use of Windows NT as the preferred operating system will continue to grow dramatically over the next five years. In the event that demand for Windows NT based firewalls declines, or other platforms become the preferred platforms, and the Company is unable to adapt its products to the preferred platforms on a

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Background."

timely basis, the Company's business, financial condition and results of operations may be materially adversely affected. See "Business--Industry Background" and "Business--FIREWALL/PLUS Technology."

POTENTIAL LIABILITY EXPOSURE. Since the Company's products are network security products and are used to prevent unauthorized access to and attacks upon critical enterprise information, the Company may be exposed to potential liability claims for damage caused to a network as a result of an actual or alleged failure of an installed product. Although the Company's license agreements typically contain provisions that are designed to limit the Company's exposure to potential product liability or related claims, including provisions that limit the Company's liability for special, consequential or incidental damages, there can be no assurance that such provisions will be enforceable under the laws of applicable domestic or foreign jurisdictions. The Company's consulting engagements often involve development, implementation and maintenance of networking systems that are critical to the operations of its clients' businesses. The Company's failure or inability to meet a client's expectations in the performance of its services could harm the Company's business reputation or result in a claim for substantial damages against the Company, regardless of the Company's responsibility for such failure or inability. In addition, in the course of performing services, the Company's personnel often gain access to technologies and content which include confidential or proprietary client information. Any unauthorized disclosure or use of such information could result in a claim for substantial damages. The Company currently maintains product liability insurance coverage in the amount of \$2,000,000 that, subject to customary exclusions, covers claims resulting from failure of the Company's products or services to perform the function or to serve the purpose intended. There can be no assurance that the Company's insurance will be sufficient to cover potential claims or that adequate levels of coverage will be available in the future at reasonable cost. A partially or completely uninsured successful claim against the Company could have a material adverse effect on the Company. See "Business--Proprietary Rights."

RISK OF PRODUCT DEFECTS. Software products as complex as those offered by the Company may contain undetected errors or result in failures when first introduced or when new versions are released. In particular, the personal computer hardware environment is characterized by a wide variety of non-standard configurations that make pre-release testing for programming or compatibility errors very difficult and time-consuming. Despite testing by the Company and by current and potential customers, there can be no assurance that errors will not be found in new products or enhancements after commencement of commercial shipments. The occurrence of these errors could result in adverse publicity, loss of or delay in market acceptance, claims by customers against the Company, or could cause the Company to incur additional costs, any of which could have a material adverse effect upon the Company's business, operating results and financial condition. See "Business--Products" and "Business--Product Development."

LENGTHY SALES CYCLE. Licensing of the Company's software products generally involves a significant commitment of capital by customers, with the attendant delays frequently associated with large capital expenditures for complex technology. Accordingly, the sales cycle for the Company's products can be lengthy and generally commences at the time a prospective customer demonstrates an interest in purchasing a FIREWALL/PLUS solution, typically includes a 30-day free evaluation period and ends upon execution of a purchase order by the customer. The length of the sales cycle varies depending on the type and sophistication of the customer and the complexity of the operating system and may extend for periods of six to nine months. As a result of the Company's lengthy sales cycle, sales of the Company's products generally require the Company to make expenditures and use significant resources prior to receipt, if any, of corresponding revenues. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

LICENSING IN FOREIGN MARKETS. The Company relies on software licenses to foreign customers for a portion of its revenues. For the years ended December 31, 1996 and 1997 and the six months ended June 30, 1998, licensing of the Company's software products to foreign customers accounted for approximately 7%, 16% and 2%, respectively, of the Company's revenues. The Company is seeking to increase the

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licensing of its products in foreign markets, but there can be no assurance that the Company will be successful or that such markets will prove to be viable. To the extent that the Company is able to successfully expand its licenses to foreign markets, the Company will become increasingly subject to risks inherent in foreign trade, including shipping delays, increased collection risks, trade restrictions, export duties and tariffs and international political, regulatory and economic developments, all of which could have an adverse effect on the Company's operating margins and results of operations and exacerbate the risks inherent in the Company's business. The Company may seek to limit its exposure to the risk of currency fluctuations by engaging in foreign currency hedging transactions that could expose the Company to substantial risk of loss. The Company is not currently engaged in any currency hedging or other activities involving derivative financial instruments. The Company has limited experience in managing international transactions and has not yet formulated a strategy to protect the Company against currency fluctuations. See "Business--Sales and Marketing."

DEPENDENCE UPON KEY PERSONNEL; NEW MANAGEMENT. The success of the Company will be largely dependent on the personal efforts of Avi A. Fogel, President and Chief Executive Officer, William Hancock, Chief Technology Officer, and Robert P. Olsen, Vice President of Product Management. Although the Company has entered into employment agreements with each of Messrs. Fogel, Hancock and Olsen, the loss of the services of any of such officers could have a material adverse effect on the Company's business and prospects. Prior to the consummation of this offering, the Company will obtain "key-man" life insurance on each of the lives of Messrs. Fogel and Olsen in the amount of \$2,000,000. The Company has been unable to obtain key-man life insurance on the life of Mr. Hancock due to his health. Messrs. Fogel and Olsen as well as Murray P. Fish, Chief Financial Officer, only joined the Company in May 1998. In addition, Joseph A. Donohue, Vice President of Engineering, and Joseph D. Harris, Vice President of International Sales, only joined the Company in July 1998 and August 1998, respectively. There can be no assurance that such officers will become sufficiently familiar with the Company's operations on a timely basis, or at all. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Management."

CONTROL BY MANAGEMENT. Upon consummation of this offering, the Company's officers and directors, will beneficially own, in the aggregate, approximately 37.2% of the outstanding Common Stock. Accordingly, such persons will continue to exert significant influence over the outcome of all matters submitted to a vote of the holders of Common Stock, including the election of directors, amendments to the Company's Certificate of Incorporation and approval of significant corporate transactions. Such consolidation of voting power could also have the effect of delaying, deterring or preventing a change in control of the Company that might be beneficial to other stockholders. See "Management" and "Principal Stockholders."

BENEFITS TO RELATED PARTIES: USE OF PROCEEDS TO REPAY INDEBTEDNESS AND TRADE

PAYABLES. Upon consummation of this offering, the Company will issue 562,836 shares of Series C Preferred Stock (subject to adjustment in the event the Underwriter's over-allotment option is exercised) in exchange for cancellation of promissory notes, plus accrued interest, of approximately \$2,954,888, including 382,696 shares of Series C Preferred Stock to be issued to Applewood Associates, L.P., a principal stockholder of the Company, in exchange for the cancellation of promissory notes, plus accrued interest, of \$2,009,156, an aggregate of 74.081 shares of Series C Preferred Stock to be issued to Charles P. Stevenson, Jr., a principal stockholder of the Company, and affiliated entities in exchange for the cancellation of promissory notes, plus accrued interest, of \$388,926, and an aggregate of 40,521 shares of Series C Preferred Stock to be issued to Corey M. Horowitz, Chairman of the Board of Directors and a principal stockholder of the Company, and CMH Capital Management Corp., whose sole stockholder is Mr. Horowitz, in exchange for the cancellation of promissory notes, plus accrued interest, of \$212,734. In addition, the Company has allocated \$585,000 (7.2%) of the net proceeds of this offering to repay outstanding indebtedness, of which \$102,811 will be paid to Charles P. Stevenson, Jr. and affiliated entities, \$75,000 will be paid to Applewood Associates, L.P., and \$56,235 will be paid to Corey M. Horowitz and CMH Capital Management Corp. In

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the event the Underwriter exercises the over-allotment option in whole or in part, the Company will use 50% of the net proceeds to repay a portion of the promissory notes, pro rata among the holders of such promissory notes, including Applewood Associates, L.P. and Messrs. Stevenson and Horowitz and their affiliated entities, and the number of shares of Series C Preferred Stock to be issued to such persons will be proportionately reduced. In addition, simultaneously with the consummation of this offering, the Company is acquiring CommHome, of which Avi A. Fogel is President and Chief Executive Officer and a principal stockholder, in exchange for 46,667 shares of Common Stock and the assumption of approximately \$200,000 of liabilities, of which \$55,000 and \$50,000 are owed to Mr. Fogel and Robert P. Olsen, Vice President of Product Management, respectively. Messrs. Fogel and Olsen have agreed to cancel such obligations in exchange for the issuance of 9,167 and 8,333 shares of Common Stock, respectively, upon the consummation of this offering. Furthermore, the Company has allocated approximately \$595,000 (7.3%) of the proceeds of this offering to pay past due trade payables including approximately \$95,000 of CommHome trade payables. See "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Description of Securities--Preferred Stock" and "Certain Transactions."

POTENTIAL CONFLICTS OF INTERESTS AS TO PRIOR TRANSACTIONS. The Company has from time to time entered into transactions with certain of its officers, directors and principal stockholders and their affiliates. Although the Company believes that transactions with such persons and their affiliates were on terms no less favorable than could have been obtained from unaffiliated third parties, the Company lacked sufficient disinterested independent directors at the time of certain of such transactions. See "Certain Transactions."

BROAD DISCRETION IN APPLICATION OF PROCEEDS. Approximately \$1,685,000 (20.7%) of the estimated net proceeds of this offering has been allocated to working capital and general corporate purposes. Management will have broad

discretion as to the application of such proceeds. Furthermore, to the extent cash flow from operations is insufficient for such purposes, a portion of the proceeds allocated to working capital may be utilized to pay a portion of the salary of the Company's officers over the twelve months following the consummation of this offering (such aggregate salaries estimated to be approximately \$840,000). See "Use of Proceeds."

IMMEDIATE AND SUBSTANTIAL DILUTION. This offering involves an immediate and substantial dilution of \$4.46 per share (or 74.3%) between the adjusted net tangible book value per share of Common Stock after this offering and the initial public offering price per share. See "Dilution."

NO DIVIDENDS. The Company has never paid any dividends on its Common Stock and does not anticipate paying cash dividends in the foreseeable future. The Company currently intends to retain all earnings for use in connection with the operation and expansion of its business. The declaration and payment of future dividends, if any, will be at the sole discretion of the Company's Board of Directors and will depend upon a variety of factors, including future earnings, if any, operations, capital requirements, the general financial condition of the Company, the preferences of any series of Preferred Stock which may be designated in the future, the general business conditions and future contractual restrictions on payments of dividends, if any. See "Dividend Policy" and "Description of Securities--Common Stock."

SHARES ELIGIBLE FOR FUTURE SALE; REGISTRATION RIGHTS. Upon the consummation of this offering, the Company will have 4,925,467 shares of Common Stock outstanding (assuming the conversion of the outstanding shares of Series C Preferred Stock into 562,836 shares of Common Stock), of which the 1,700,000 shares being offered hereby will be freely tradeable without restriction or further registration under the Securities Act. All of the remaining 3,225,467 shares of Common Stock outstanding are "restricted securities," as that term is defined in Rule 144 promulgated under the Securities Act, and in the future may be sold only pursuant to an effective registration statement under the Securities Act, in compliance with the exemption provisions of Rule 144, on various dates following the date of this Prospectus, or pursuant to another exemption under the Securities Act. The Company has granted certain registration rights with respect to an aggregate of 1,126,750 shares of Common Stock, and the Company

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has granted the Underwriter demand and piggyback registration rights with respect to the shares of Common Stock issuable upon exercise of the Underwriter's Warrants. No prediction can be made as to the effect, if any, that sales of such securities or the availability of such securities for sale will have on the market prices prevailing from time to time. While all of the Company's principal securityholders, officers and directors, have agreed not to (i) sell or otherwise dispose of any shares of Common Stock in any public market transaction (including pursuant to Rule 144) or (ii) exercise any registration rights for a period of twelve months following the date of this Prospectus without the Underwriter's prior written consent, the possibility that a substantial number of the Company's securities may be sold in the public market may adversely affect prevailing market prices for the Common Stock and could impair the Company's ability to raise capital through the sale of its equity securities. See "Description of Securities" and "Shares Eligible for Future Sale."

SIGNIFICANT OUTSTANDING OPTIONS AND WARRANTS; POTENTIAL ADVERSE EFFECT ON MARKET PRICE OF COMMON STOCK. Upon the consummation of this offering, there will be outstanding options and warrants to purchase an aggregate of 1,656,102 shares of Common Stock (including 170,000 shares of Common Stock issuable upon exercise of the Underwriter's Warrants) at exercise prices ranging from \$1.61 to \$9.66 per share. To the extent that outstanding options and warrants are exercised, dilution to the percentage ownership of the Company's stockholders will occur and any sales in the public market of the Common Stock underlying such options and warrants may adversely affect prevailing market prices for the Common Stock. Moreover, the terms upon which the Company will be able to obtain additional equity capital may be adversely effected since the holders of outstanding

options and warrants can be expected to exercise them at a time when the Company would, in all likelihood, be able to obtain any needed capital on terms more favorable to the Company than those provided in the outstanding options and warrants. See "Management--Stock Option Plan," "Description of Securities--Warrants and Options" and "Underwriting."

NO ASSURANCE OF PUBLIC MARKET; ARBITRARY DETERMINATION OF OFFERING PRICE; POSSIBLE VOLATILITY OF MARKET PRICE OF COMMON STOCK. Prior to this offering,

there has been no public trading market for the Common Stock. There can be no assurance that a regular trading market for the Common Stock will develop after this offering or that, if developed, it will be sustained. The initial public offering price of the Common Stock has been determined arbitrarily by negotiation between the Company and the Underwriter and is not necessarily related to the assets, book value or potential earnings of the Company or any other recognized criteria of value and may not be indicative of the prices that may prevail in the public market. In addition, the market price for the Common Stock following this offering may be highly volatile as has been the case with the securities of other companies in emerging businesses. Factors such as the Company's operating results, announcements of the Company or its competitors, introduction of new products or technologies by the Company or its competitors and various factors affecting the network security industry generally or the market for firewall products in particular may have a significant impact on the market price of the Common Stock. Additionally, in recent years, the stock market has experienced a high level of price and volume volatility and market prices for the stock of many companies, particularly of small and emerging growth companies, the common stock of which trade in the over-the-counter market, have experienced wide price fluctuations which have not necessarily been related to the operating performance of such companies. See "Underwriting."

POSSIBLE DELISTING OF SECURITIES FROM NASDAQ SYSTEM; RISKS RELATING TO

LOW-PRICED STOCKS. It is currently anticipated that the Common Stock will be eligible for listing on Nasdaq upon the completion of this offering. In order to continue to be listed on Nasdaq, however, the Company must maintain \$2,000,000 in net tangible assets (total assets, other than goodwill, less total liabilities), and a \$1,000,000 market value of the public float. In addition, continued inclusion requires two market-makers, a minimum bid price of \$1.00 per share and adherence to certain corporate governance provisions. The failure to meet these maintenance criteria in the future may result in the delisting of the Common Stock from Nasdaq, and trading, if any, in the Common Stock would thereafter be conducted in the non-Nasdaq over-the-counter

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market. As a result of such delisting, an investor could find it more difficult to dispose of or to obtain accurate quotations as to the market value of the Common Stock.

In addition, if the Common Stock were to become delisted from trading on Nasdaq and the trading price of the Common Stock were to fall below \$5.00 per share, trading in the Common Stock would also be subject to the requirements of certain rules promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which require additional disclosure by broker-dealers in connection with any trades involving a stock defined as a penny stock (generally, any non-Nasdaq equity security that has a market price of less than \$5.00 per share, subject to certain exceptions). Such rules require the delivery, prior to any penny stock transaction, of a disclosure schedule explaining the penny stock market and the risks associated therewith and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors (generally defined as an investor with a net worth in excess of \$1,000,000 or annual income exceeding \$200,000 individually or \$300,000 together with a spouse). For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to the sale. The broker-dealer also must disclose the commissions payable to the broker-dealer, current bid and offer quotations for the penny stock and, if the broker-dealer is the sole marketmaker, the broker-dealer must disclose this fact and the broker-dealer's presumed control over the market. Such information must be provided to the customer orally or in writing before or with the written confirmation of trade sent to the customer. Monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. The additional burdens imposed upon broker-dealers by such requirements could, in the event the Common Stock were

deemed to be a penny stock, discourage broker-dealers from effecting transactions in the Common Stock which could severely limit the market liquidity of the Common Stock and the ability of purchasers in this offering to sell the Common Stock in the secondary market.

ADVERSE EFFECT OF PREFERRED STOCK; ANTI-TAKEOVER PROVISIONS AFFECTING

STOCKHOLDERS. The Company's Certificate of Incorporation authorizes the Company's Board of Directors to issue 5,000,000 shares of "blank check" Preferred Stock and to fix the rights, preferences, privileges and restrictions, including voting rights, of these shares, without further stockholder approval. Upon consummation of this offering, there will be 562,836 shares of Series C Preferred Stock outstanding. The holders of the Series C Preferred Stock will be entitled to a liquidation preference of \$5.25 per share plus any declared but unpaid dividends before any payments are made to holders of Common Stock, in the event of liquidation, dissolution or winding up of the Company or, if elected by a majority of the outstanding shares of Series C Preferred Stock, upon the sale of all or substantially all of the assets of the Company or the merger of the Company into any other entity. The rights of the holders of Common Stock will be subject to and may be adversely affected by the rights of holders of the Series C Preferred Stock or additional Preferred Stock that may be designated and issued in the future. The ability to issue additional series of Preferred Stock without stockholder approval could have the effect of making it more difficult for a third party to acquire a majority of the voting stock of the Company thereby delaying, deferring or preventing a change in control of the Company. Moreover, following the consummation of this offering, the Company will be subject to the State of Delaware's "business combination" statute, which prohibits a publicly-traded Delaware corporation from engaging in various business combination transactions with any of its 15% stockholders for a period of three years after the date of the transaction in which the person became an "interested stockholder," unless certain approvals are obtained or other events occur. The statute could prohibit or delay mergers or other attempted takeovers or changes in control with respect to the Company and, accordingly, may discourage attempts to acquire the Company. See "Description of Securities."

TAX LOSS CARRYFORWARD. The Company's net operating loss carryforwards ("NOLs") expire in the years 2009 to 2012. Under Section 382 of the Internal Revenue Code of 1986, as amended, utilization of prior NOLs is limited after an ownership change, as defined in Section 382, to an annual amount equal to the value of the corporation's outstanding stock immediately before the date of the ownership change

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multiplied by the long-term tax exempt rate. The additional equity financing obtained by the Company in connection with recent financings and this offering will result in an ownership change and, thus, will limit the Company's use of its prior NOLs. In the event the Company achieves profitable operations, any significant limitation on the utilization of its NOLs would have the effect of increasing the Company's tax liability and reducing net income and available cash reserves. The Company is unable to determine the availability of such NOLs since this availability is dependent upon profitable operations, which the Company has not achieved in prior periods. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note H to Notes to Financial Statements.

LIMITATIONS ON LIABILITY OF DIRECTORS AND OFFICERS. The Company's

Certificate of Incorporation includes provisions to eliminate, to the full extent permitted by Delaware General Corporation Law as in effect from time to time, the personal liability of directors of the Company for monetary damages arising from a breach of their fiduciary duties as directors. The Certificate of Incorporation also includes provisions to the effect that the Company shall, to the maximum extent permitted from time to time under the law of the State of Delaware, indemnify any director or officer. In addition, the Company's By-laws require the Company to indemnify, to the fullest extent permitted by law, any director, officer, 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. See "Management--Limitation of Liability and Indemnification Matters."

# 18 USE OF PROCEEDS

The net proceeds to the Company from the sale of the 1,700,000 shares of Common Stock offered hereby, (after deducting underwriting discounts and commissions and other expenses of the offering) are estimated to be approximately \$8,145,000 (\$9,476,100 if the Underwriter's over-allotment option is exercised in full). The Company expects to use the net proceeds (assuming no exercise of the Underwriter's over-allotment option) during the twelve months following this offering approximately as follows:

<table></table>
<caption></caption>

APPLICATION OF NET PROCEEDS	APPROXIMATE	_	_	ENTAGE OF NET PROCEEDS
<s> Sales and marketing(1)  Software development(2)  Payment of trade payables(3)  Repayment of outstanding indebtedness(4)  Purchase of computer equipment(5)  Relocation of offices(6)  Working capital and general corporate purpose</s>		000 0,000 5,000 585,000 200,000 00 1.	7.3 7.2 2.5	
Total	\$ 8,145,000	100.0%		

  |  |  |  ||  |  |  |  |  |

- (1) Represents (i) approximately \$1,870,000 for sales, marketing and promotional activities related to the Company's software products and (ii) approximately \$1,750,000 for the salaries and related costs of up to 20 additional sales and marketing personnel. See "Business--Sales and Marketing."
- (2) Represents estimated costs associated with software development, including the salaries of up to 12 additional software engineers and developers. See "Business--Product Development."
- (3) Represents payment of (i) estimated past due trade payables and (ii) approximately \$95,000 of certain liabilities assumed by the Company in connection with the CommHome Acquisition. See "Business-- CommHome Systems Corporation Acquisition," "Certain Transactions" and Financial Statements.
- (4) Represents amounts to repay (i) \$575,000 principal amount of promissory notes issued from February 1997 through October 1998, plus estimated accrued interest thereon at annual rates between 6% and 10%, including \$102,811 which will be paid to Charles P. Stevenson, Jr., a principal stockholder of the Company, and affiliated entities, \$75,000 which will be paid to Applewood Associates, L.P., a principal stockholder of the Company, and \$56,235 which will be paid to Corey M. Horowitz, Chairman of the Board of Directors and a principal stockholder of the Company, and CMH Capital Management Corp., of which Mr. Horowitz is the sole stockholder. The Company used the net proceeds from the issuance of the promissory notes for working capital and general corporate purposes. See "Certain Transactions."
- (5) Represents expenditures to purchase hardware and software as well as servers

- (6) Represents costs associated with relocating the Company's principal office location to the Boston, Massachusetts area, including rent and related costs. See "Business--Facilities."
- (7) Represents amounts which may be used to pay a portion of the compensation for executive officers (such aggregate salaries are estimated to be \$840,000 during the twelve months following the consummation of this offering), rent, trade payables, consulting fees and professional fees.

If the Underwriter's over-allotment option is exercised in full, the Company will realize additional net proceeds of \$1,331,100, of which 50% will be allocated to working capital and general corporate purposes and 50% will be allocated to repay additional indebtedness. See "Certain Transactions."

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The allocation of the net proceeds from this offering set forth above represents the Company's best estimate based upon its currently proposed plans and assumptions relating to its operations and certain assumptions regarding general economic conditions. If any of these factors change, the Company may find it necessary or advisable to reallocate some of the proceeds within the above-described categories or to use portions thereof for other purposes. The Company may also use a portion of the net proceeds for the acquisition of businesses, technologies, or products which it believes are complimentary to those of the Company, although there are currently no commitments or agreements with respect to any such acquisitions as of the date of this Prospectus, except for the acquisition of CommHome. See "Business-- CommHome Systems Corporation Acquisition."

Based on currently proposed plans and assumptions relating to its operations, and implementation of its business plan (including the timetable of costs and expenses associated with, and success of, its marketing efforts) the Company anticipates that the net proceeds of this offering, together with projected revenues from operations, will be sufficient to fund the Company's operations and capital requirements for approximately twelve months following the consummation of this offering. There can be no assurance, however, that such funds will not be expended prior thereto due to unanticipated changes in economic conditions or other unforeseen circumstances. In the event the Company's plans change or its assumptions change or prove to be inaccurate (due to unanticipated expenses, difficulties, delays or otherwise) or the net proceeds of this offering and projected revenues otherwise prove to be insufficient to fund the implementation of the Company's business plan or working capital requirements, the Company could be required to seek additional financing sooner than currently anticipated. The Company has no current arrangements with respect to any additional financing. Consequently, there can be no assurance that any additional financing will be available to the Company when needed, on commercially reasonable terms or at all.

Proceeds not immediately required for the purposes described above will be invested principally in United States government securities, short-term certificates of deposit, or other similar short-term, interest bearing investments.

#### 20 DILUTION

The difference between the initial public offering price per share of Common Stock and the net tangible book value per share of Common Stock after this offering constitutes the dilution to investors in this offering. Net tangible book value per share is determined by dividing the net tangible book value of the Company attributable to Common Stock (total tangible assets less total liabilities less the amount of equity representing the liquidation preferrence of any outstanding preferred stock) by the number of outstanding shares of Common Stock without giving effect to the conversion of any convertible securities, unless otherwise indicated.

At June 30, 1998, the negative net tangible book value of the Company attributable to Common Stock was (\$1,428,000) or \$(.85) per share (\$(.36) per share, on a pro forma basis after giving effect to (i) the conversion of the outstanding shares of Series B Convertible Preferred Stock into 310,399 shares of Common Stock upon consummation of this offering, and (ii) the issuance of 596,741 shares of Common Stock in exchange for the cancellation of outstanding warrants and options to purchase 789,521 shares of Common Stock on July 8, 1998 (collectively, the "Pro Forma Adjustments")). After also giving effect to the sale by the Company of the 1,700,000 shares of Common Stock offered hereby (after deducting underwriting discounts and commissions and estimated expenses of this offering) and the Offering Adjustments (see footnote 2 of "Prospectus Summary--Summary Financial Information"), the adjusted net tangible book value of the Company attributable to Common Stock at June 30, 1998 would have been \$6,733,000, or \$1.54 per share, representing an immediate increase in net tangible book value of \$1.90 per share to the existing stockholders and an immediate dilution of \$4.46 (74.3%) per share to new investors. The following table illustrates the foregoing information with respect to dilution to new investors on a per share basis:

<table></table>
<\$> <c> <c></c></c>
Initial public offering price\$ 6.00
Pro forma net tangible book value before offering \$ (.36)
Increase attributable to new investors
Adjusted net tangible book value after offering 1.54
Dilution per share to new investors\$ 4.46
<del></del>
<b></b>

The following table sets forth, with respect to the Company's existing stockholders (after giving effect to the Pro Forma Adjustments and the Offering Adjustments and assuming conversion of the Series C Preferred Stock into 562,836 shares of Common Stock) and new investors in this offering, a comparison of the number of shares of Common Stock acquired from the Company, the percentage ownership of such shares, the total consideration paid, the percentage of total consideration paid and the average price per share.

<table> <caption></caption></table>	
CAI HOW	SHARES PURCHASED TOTAL CONSIDERATION
	NUMBER PERCENT AMOUNT PERCENT PRICE PER SHARE
<s></s>	<c> <c> <c> <c> <c> <c> <c></c></c></c></c></c></c></c>
Total	4,925,467 100.0% \$ 20,399,208 100.0%

  |The above tables assume no exercise of the Underwriter's over-allotment option. If such option is exercised in full, the Company will use 50% of the net proceeds therefrom (\$665,550) to repay certain indebtedness and, as a result, 126,771 shares of Series C Preferred Stock will not be issued and existing stockholders will have paid \$9,533,658 for 3,098,696 shares. In addition, the new investors will have paid \$11,730,000 for 1,955,000 shares of Common Stock, representing approximately 55.2% of the total consideration, for 38.7% of the total number of shares of Common Stock outstanding. In addition, the above

tables do not give effect to shares issuable upon exercise of outstanding warrants and options to purchase 1,656,102 shares of Common Stock, including options to purchase 855,216 shares of Common Stock issued under the Stock Option Plan and 170,000 shares of Common Stock issuable upon exercise of the Underwriter's Warrants. See "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Management--Stock Option Plan," Description of Securities--Warrants and Options" and "Underwriting."

#### 21 DIVIDEND POLICY

The Company has never declared or paid any cash dividends on its Common Stock and does not intend to declare or pay cash or other dividends in the foreseeable future. The Board of Directors currently expects to retain any future earnings for use in the operation and expansion of its business. The declaration and payment of any future dividends will be at the discretion of the Board of Directors and will depend upon a variety of factors, including future earnings, if any, operations, capital requirements, the general financial condition of the Company, the preferences of any series of Preferred Stock which may be designated in the future, the general business conditions and future contractual restrictions on payment of dividends, if any.

## **CAPITALIZATION**

The following table sets forth the capitalization of the Company (i) as of June 30, 1998 and (ii) as adjusted to give effect to the sale of the Common Stock offered hereby, the anticipated application of the estimated net proceeds therefrom and the Pro Forma Adjustments (see "Dilution") and the Offering Adjustments (see footnote 2 of "Prospectus Summary -- Summary Financial Information"). The information set forth below should be read in conjunction with the Financial Statements and Notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

<caption></caption>			
	JUNE 3	30, 1998	
<\$>	<c></c>	<c> AS A</c>	DJUSTED
Short-term debt	\$ 2,5	82,000	 
Total stockholders' equity (deficit)	tanding, actualized and instedssued and outsied (liquidation)	al, and as d outstand standing, an preferer \$ ,678,104 standing, 000 9,432,000 ,460,000) (578,00	ding, 5,000 actual; ace 6,000 shares as 43,000 20,969,000 (10,758,000) (572,000) (572,000 00) 9,688,000

<sup>(1)</sup> See Note F to Notes to Financial Statements.

(3) Does not include (i) 855,216 shares of Common Stock issuable upon exercise of stock options (of which options to purchase 448,875 shares were granted as of June 30, 1998) under the Stock Option Plan, (ii) 630,886 shares of Common Stock issuable upon exercise of other outstanding options and warrants and (iii) 170,000 shares of Common Stock reserved for issuance upon exercise of the Underwriter's Warrants.

#### 22 SELECTED FINANCIAL DATA

The following selected financial data for the years ended December 31, 1996 and December 31, 1997 and at December 31, 1997 have been derived from the Company's audited financial statements. The following selected financial data for the six month periods ended June 30, 1997 and 1998 and at June 30, 1998 have been derived from unaudited financial statements which have been prepared on the same basis as the audited financial statements and, in the opinion of management, contain all adjustments, consisting only of normal recurring adjustments, necessary to present fairly the information presented. The results for the six month period ended June 30, 1998 are not necessarily indicative of the results to be expected for any other interim period or the fiscal year. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Financial Statements.

## STATEMENT OF OPERATIONS DATA:

<TABLE>

<caption></caption>					
	YEAR ENDED I			NTHS ENDED .	JUNE 30,
<\$>	<c> <c></c></c>	<c></c>	<c></c>	•	
	1996 1999				
Revenues:					
Licenses	\$ 624,000 \$	1,132,000 \$	506,000 \$	412,000	
Royalties Services	403,000	737,000 4	,000 421,000 4	190,000	
Total revenues	1,027,000			902,000	
Cost of revenues:					
Amortization of software developme	nt costs	246,000	321,000	125,000 26	7,000
Amortization of software developme Cost of licenses Cost of services	390,000	418,000	212,000	272,000	
Total cost of revenues	829,00			667,000	
Gross profit				235,000	
Operating expenses:	000			202.000	
Product development	892,0	792,000	235,000	283,000	
Selling and marketing	1,614,0	000 1572.0	000 010.0	) 351,000 1,152,000	
General and administrative	1,931		,000 919,0 	1,155,000	
Total operating expenses	4,437,			00 1,787,000	
Loss from operations				00) (1,552,000)	
Interest expense	(260,000)	(553,000)	(141,000)		
Net loss	\$ (4,499,000) \$	\$ (2,390,000) \$	(781,000) \$	\$ (1,990,000)	
	e (2.46)			(1.17)	
Loss per share (1) Weighted average number of shares o	\$ (2.46)	\$ (1.29)\$ 1 825 162	(.40) \$ 1 855 244	1 024 224	1 600 120

 uisianumg (1*)* | 1,023,103 | 1,033,244 | 1,734,334 | 1,099,120 |

# BALANCE SHEET DATA:

# DECEMBER 31, 1997 JUNE 30, 1998

	ACTUA	L	ACT	UAL	AS AI	DJUSTED
<\$>	<c></c>	<	C>	<c></c>		
Cash and cash equivalents		\$ 6	0,000	\$ 63	4,000 \$	8,349,000
Working capital (deficit)		(661	,000)	(2,429	,000)	8,187,000
Total assets	2,4	04,000	3,1	29,000	10,4	94,000
Total liabilities	2,4	79,000	3,7	707,000	80	06,000
Accumulated deficit		(7,470)	(000)	(9,460	,000)	(10,758,000)
Total stockholders' equity (deficit)		(	75,000)	(57	78,000)	9,688,000

  |  |  |  |  |  ||  |  |  |  |  |  |  |
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(1) See Notes A and B to Notes to Financial Statements for an explanation of shares used in net loss per share calculations.

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MANAGEMENT'S DISCUSSION AND ANALYSIS
OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

THE FOLLOWING DISCUSSION AND ANALYSIS SHOULD BE READ IN CONJUNCTION WITH THE COMPANY'S FINANCIAL STATEMENTS, INCLUDING THE NOTES THERETO, INCLUDED ELSEWHERE IN THIS PROSPECTUS. EXCEPT FOR THE HISTORICAL INFORMATION CONTAINED HEREIN, THIS DISCUSSION CONTAINS FORWARD-LOOKING STATEMENTS THAT INVOLVE RISKS AND UNCERTAINTIES, INCLUDING, WITHOUT LIMITATION, THOSE CONCERNING THE COMPANY'S STRATEGY AND GROWTH PLANS. BECAUSE SUCH STATEMENTS INVOLVE RISKS AND UNCERTAINTIES, ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THOSE EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. FACTORS THAT COULD CAUSE SUCH DIFFERENCES INCLUDE, BUT ARE NOT LIMITED TO, THOSE DISCUSSED UNDER "RISK FACTORS."

# **GENERAL**

The Company develops, markets, licenses and supports a family of network security software products designed to provide comprehensive security to computer networks including Internet based systems and internal networks and computing resources. The Company also offers to its customers a full range of consulting services in network security, network design and support. From inception (July 1990) through December 31, 1994, the Company was primarily engaged in providing consulting and training services. In 1995, the Company began to shift its focus from consulting and training to the development and marketing of network security software products. The Company introduced its first FIREWALL/PLUS software product in June 1995. Accordingly, the Company has a limited relevant operating history as a software developer upon which an evaluation of its prospects and future performance can be made. Such prospects must be considered in light of the risks, expenses and difficulties frequently encountered in the operation and expansion of a new business and the shift from research and product development to commercialization of products based on rapidly changing technologies in a highly specialized and emerging market. The Company will be required to significantly expand its product and development capabilities, introduce new products, introduce enhanced features to existing products, expand its in-house sales force, establish and maintain distribution channels through third-party vendors, increase marketing expenditures, further expand its management team and attract additional qualified personnel. In addition, the Company must adapt to the demands of an emerging and rapidly changing computer network security market, intense competition and rapidly changing technology and industry standards. There can be no assurance that the Company can successfully address such risks, and the failure to do so would have a material adverse effect on the Company's business, results of operations and financial condition.

To date, the Company has incurred significant losses and, at June 30, 1998, had an accumulated deficit of \$9,460,000. Inasmuch as the Company intends to increase its level of activities following the consummation of this offering and will be required to make significant up-front capital expenditures in connection with its sales and marketing and continuing research and product development efforts, the Company anticipates that losses will continue until such time, if ever, as the Company is able to attain sales levels sufficient to support its

operations. There can be no assurance that the Company will ever achieve profitable operations. The Company's independent auditors have included an explanatory paragraph in their report on the Company's financial statements for the year ended December 31, 1996 and December 31, 1997, stating that certain factors raise substantial doubt about the Company's ability to continue as a going concern.

The Company has only recently employed certain members of senior management relating to expansion of its operations and this offering, including Avi A.

Fogel, President and Chief Executive Officer, Robert P. Olsen, Vice President of Product Management, Murray P. Fish, Chief Financial Officer, Joseph A. Donohue, Vice President of Engineering and Joseph D. Harris, Vice President of International Sales. In addition, the Company intends to hire approximately 12 additional software engineers and developers and 20 additional sales and marketing personnel within twelve months of consummation of this offering, as well as expand its finance and administrative staff and increase expenses for employee benefits,

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facilities, consulting, insurance, and other general operating expenses. See "Business--Sales and Marketing," "Business--Product Development" and "Management."

The Company's FIREWALL/PLUS family of software products has not yet achieved market acceptance. The future success of the Company is largely dependent upon market acceptance of its FIREWALL/PLUS family of software products. While the Company believes that its FIREWALL/PLUS family of software products offer advantages over competing products for network security, license revenues and royalties from FIREWALL/PLUS products since their introduction (June 1995) through June 30, 1998 has only been \$2,561,000, including a non-refundable pre-paid royalty of \$500,000. There can be no assurance that FIREWALL/PLUS will gain significant market acceptance. Revenue from such commercial products depend on a number of factors, including the influence of market competition, technological changes in the network security market, the Company's ability to design, develop and introduce enhancements on a timely basis, and the ability of the Company to successfully establish and maintain distribution channels. The failure of FIREWALL/PLUS to achieve significant market acceptance, as a result of competition, technological change or other factors, would have a material adverse effect on the Company's business, operating results and financial condition.

The Company's revenues are generated primarily from product license fees for the use of the Company's software products (license revenues) and service fees for consulting services, including training and maintenance (service revenues). Revenues from licenses are recognized upon (i) delivery of the software or, if the customer has evaluation software, delivery of the software key, and (ii) issuance of the related license, assuming that no significant vendor obligations or customer acceptance rights exist. In October 1997, the American Institute of Certified Public Accountants issued Statement of Position ("SOP") No. 97-2, SOFTWARE REVENUE RECOGNITION, which the Company adopted, effective January 1, 1997. Such adoption had no effect on the Company's methods of recognizing revenue from its license and maintenance activities. Prior to 1997, the Company's revenue policy was in accordance with the preceding authoritative guidance provided by SOP No. 91-1, SOFTWARE REVENUE RECOGNITION.

The Company recognizes service revenue upon delivery of the service or ratably over the period of service. Consulting fees are recognized as such services are performed. Annual maintenance, which may be purchased in conjunction with the licensing of a product, is offered for an annual fee generally equal to 15% of the then current license fee and is recorded as service revenue ratably over the contract term.

The Company markets and licenses its products and services primarily through third parties, such as VARs, systems integrators, resellers, distributors and OEMs, and to a lesser extent, through the Company's limited in-house sales force. Licenses through distributors typically have a lower gross margin than in-house generated licenses since distributors usually receive discounts. Revenues from third-party distributors accounted for approximately 23% and 72% of the Company's license revenues for the years ended December 31, 1996 and 1997, respectively, and 60% of the Company's license revenues for the six months ended June 30, 1998. The Company expects that the percentage of license revenues

generated from third-party distributors to increase in future periods. Pricing is based upon the number of concurrent connections, the nature of the user's operating system and whether hardware is needed. Selling and marketing expenses are expected to increase as a result of proposed expansion of distribution channels and marketing programs and hiring of additional personnel.

The Company has committed significant product and development resources to its FIREWALL/PLUS family of products. The Company's anticipated levels of expenditures for product development are based on its plans for product enhancements and new product development. The Company capitalizes and amortizes software development costs in accordance with Statement of Financial Accounting Standards No. 86. These costs consist of salaries, consulting fees and applicable overhead. The Company intends to use a portion of the proceeds of this offering to significantly increase its product development expenditures. See "Business--Product Development."

The Company's net operating loss carryforwards ("NOLs") expire in the years 2009 to 2012. Under Section 382 of the Internal Revenue Code of 1986, as amended, utilization of prior NOLs is limited after

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an ownership change, as defined in Section 382, to an annual amount equal to the value of the corporation's outstanding stock immediately before the date of the ownership change multiplied by the long-term tax exempt rate. The additional equity financing obtained by the Company in connection with recent financings and this offering will result in an ownership change and, thus, will limit the Company's use of its prior NOLs. In the event the Company achieves profitable operations, any significant limitation on the utilization of its NOLs would have the effect of increasing the Company's tax liability and reducing net income and available cash reserves. The Company is unable to determine the availability of such NOL's since this availability is dependent upon profitable operations, which the Company has not achieved in prior periods. See Note H to Notes to Financial Statements.

#### RESULTS OF OPERATIONS

SIX MONTHS ENDED JUNE 30, 1998 COMPARED TO SIX MONTHS ENDED JUNE 30, 1997 Revenues decreased by \$525,000 or 37%, from \$1,427,000 for the six months ended June 30, 1997 to \$902,000 for the six months ended June 30, 1998, primarily as a result of the Company's receipt of a non-refundable pre-paid royalty of \$500,000 during the six months ended June 30, 1997.

License revenues decreased by \$94,000 or 19%, from \$506,000 for the six months ended June 30, 1997 to \$412,000 for the six months ended June 30, 1998, primarily due to a lack of financial resources for marketing of the Company's software products during the six months ended June 30, 1998 and certain initial product licensing payments received from international resellers during the six months ended June 30, 1997. During the six months ended June 30, 1998, revenues from FIREWALL/PLUS products and third party virtual private network ("VPN") products accounted for \$326,000 and \$86,000 of license revenues, respectively, and during the six months ended June 30, 1997, license revenues consisted solely of licenses of FIREWALL/PLUS products. Royalties were \$500,000 for the six months ended June 30, 1997 as a result of the receipt of a non-refundable pre-paid royalty of \$500,000 from Trusted Information Systems, Inc. ("TIS") in June 1997 and \$0 for the six months ended June 30, 1998.

Service revenues increased by \$69,000 or 16%, from \$421,000 for the six months ended June 30, 1997 to \$490,000 for the six months ended June 30, 1998. Service revenues from consulting increased by \$71,000 or 20%, from \$353,000 for the six months ended June 30, 1997 to \$424,000 for the six months ended June 30, 1998. The increase in service revenues from consulting was attributable to a large consulting project serviced during the six months ended June 30, 1998.

The Company's three largest customers, The City of Hope, Electronic Data Systems Corporation ("EDS") and The Sabre Group, Inc. accounted for 32%, 17% and 11% of the Company's revenues, respectively, during the six months ended June 30, 1998. The Company's revenues from customers in the United States represented 83% of its revenues during the six months ended June 30, 1997 and 98% of its revenues during the six months ended June 30, 1998.

Cost of revenues consists of cost of licenses, amortization of software development costs and cost of services. Cost of licenses consist of software media (disks), documentation, product packaging, production costs, product royalties and the cost of hardware associated with sales of FIREWALL/PLUS

PREMIER VERSION. Cost of licenses increased by \$76,000 or 146%, from \$52,000 for the six months ended June 30, 1997 to \$128,000 for the six months ended June 30, 1998, representing 10% and 31% of license revenues, respectively. The increase in cost of licenses in dollar amount and as a percentage of license revenues resulted primarily from increased hardware costs associated with sales of FIREWALL/PLUS PREMIER VERSION, which includes computer hardware and, therefore, has a lower gross margin, and sales of third party VPN products. Cost of licenses as a percentage of license revenues may fluctuate from period to period due to changes in product mix, changes in the number or size of transactions recorded in a given period or an increase or decrease in licenses of products which would require the Company to pay royalties to third parties. Amortization of software development costs increased by \$142,000 or 114%, from \$125,000 for the six months ended June 30, 1997 to \$267,000 for the six months ended June 30, 1998, representing 25% and

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65% of license revenues, respectively. The increase in the amortization of software development costs for the six months ended June 30, 1998 was due to the commencement of amortization of costs of the FIREWALL/ PLUS WINDOWS NT Version 4.0 upon its release in September 1997.

Cost of services consist of salaries, benefits and overhead associated with consulting services and maintenance. Cost of services increased by \$60,000 or 28%, from \$212,000 for the six months ended June 30, 1997 to \$272,000 for the six months ended June 30, 1998, representing 50% and 56% of service revenues, respectively, due to increases in employees and outside consultants.

Gross profit decreased from \$1,038,000 for the six months ended June 30, 1997 to \$235,000 for the six months ended June 30, 1998, representing 73% and 26% of revenues, respectively. The decrease in gross profit was due to the receipt of the non-refundable prepaid royalty of \$500,000 in June 1997, decreased license revenues and the increase in cost of sales as a result of increased amortization of software costs, licenses of third party VPN products and hardware costs associated with licenses of FIREWALL/PLUS PREMIER VERSION.

Product development consists of salaries, benefits, travel and related costs of the Company's product development personnel, including consulting fees, the costs of computer equipment used in product and technology development and third-party development contracts. Product development expense increased \$48,000 or 20%, from \$235,000 for the six months ended June 30, 1997 to \$283,000 for the six months ended June 30, 1998, representing 16% and 31% of revenues, respectively. Total product development costs, including capitalized costs of \$567,000 and \$50,000, were \$802,000 and \$333,000 for the six months ended June 30, 1997 and June 30, 1998, respectively. The decrease in total product development costs was due to the significant costs incurred during the six months ended June 30, 1997 for the development of FIREWALL/PLUS Version 4.0 which was released in September 1997, and reduced expenditures during the six months ended June 30, 1998 resulting from the Company's lack of financial resources. The Company currently anticipates that product development costs will increase as the Company hires additional software engineers and developers to support the Company's growth. See "Business--Product Development."

Sales and marketing expenses consist primarily of salaries, including commissions, benefits, bonuses and travel, advertising, public relations, consultants and trade shows. Selling and marketing expenses decreased by \$173,000 or 33%, from \$524,000 for the six months ended June 30, 1997 to \$351,000 for the six months ended June 30, 1998, representing 37% and 39% of revenues, respectively. The decrease in selling and marketing expenses was due primarily to a decrease in marketing efforts during such period resulting from the Company's lack of financial resources for such purposes.

General and administrative expenses include employee costs, including salary, benefits, travel and other related expenses associated with management, finance and accounting operations, and legal and other professional services provided to the Company. General and administrative expenses increased by \$234,000 or 25%, from \$919,000 for the six months ended June 30, 1997 to \$1,153,000 for the six months ended June 30, 1998, representing 64% and 128% of revenue, respectively. The increase in general and administrative expenses was due primarily to non-cash charges of \$583,000 during the six months ended June 30, 1998 related to the value of stock options issued to the Company's Chief Executive Officer and other securities issued to an affiliate of the Company's Chairman of the Board of Directors and third parties for services, as compared to non-cash charges of \$95,000 during the six months ended June 30, 1997 related to consulting services. This increase was partially offset by reduced professional fees, recruitment fees and travel and entertainment expenses during the six months ended June 30, 1998. The Company currently anticipates that

general and administrative expenses will increase significantly as the Company hires additional personnel to support its growth in future periods.

Interest expense increased by \$297,000 or 211%, from \$141,000 for the six months ended June 30, 1997 to \$438,000 for the six months ended June 30, 1998, representing 10% and 49% of revenues, respectively. The increase in interest expense was due primarily to an increase in the amortization of debt

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discount for the six months ended June 30, 1998 related to private financings consisting of notes and warrants. Interest expense is expected to be significantly reduced following consummation of this offering since (i) indebtedness of \$2,954,888 will be cancelled in exchange for 562,836 shares of Series C Preferred Stock and (ii) approximately \$585,000 of the proceeds of this offering will be used to repay the balance of the Company's outstanding debt. See "Certain Transactions."

No provision for or benefit from federal, state or foreign income taxes was recorded for the six months ended June 30, 1997 or the six months ended June 30, 1998 because the Company incurred net operating losses during each period and fully reserved its deferred tax assets as their future realization could not be determined.

As a result of the foregoing, the net loss increased by \$1,209,000 or 155%, from \$781,000 for the six months ended June 30, 1997 to \$1,990,000 for the six months ended June 30, 1998.

YEAR ENDED DECEMBER 31, 1997 COMPARED TO YEAR ENDED DECEMBER 31, 1996 Revenues increased by \$1,342,000 or 131%, from \$1,027,000 for the year ended December 31, 1996 ("1996") to \$2,369,000 for the year ended December 31, 1997 ("1997"). License revenues increased by \$508,000 or 81%, from \$624,000 for 1996 to \$1,132,000 for 1997, as a result of introduction of FIREWALL/PLUS for Windows NT. Royalties were \$500,000 in 1997 and \$0 in 1996 as a result of receipt of a non-refundable pre-paid royalty of \$500,000 from TIS relating to licensing certain of the Company's technology in June 1997. Service revenues increased by \$334,000 or 83%, from \$403,000 for 1996 to \$737,000 for 1997. Service revenues from consulting increased by \$245,000 or 68% from \$359,000 in 1996 to \$604,000 in 1997, primarily as a result of servicing a large consulting project during 1997. Service revenues from maintenance increased by \$89,000 or 202% from \$44,000 in 1996 to \$133,000 in 1997, as a result of an increase in the customer base for FIREWALL/PLUS products which purchased maintenance contracts. The Company's three largest customers, TIS, EDS and ARCO accounted for 21%, 15% and 13% of the Company's revenues, respectively, in 1997. The Company's revenues from customers in the United States represented 93% of its revenues in 1996 and 84% of its revenues in 1997.

Cost of licenses decreased \$17,000 or 9%, from \$193,000 for 1996 to \$176,000 for 1997, representing 31% and 16% of license revenues, respectively. The decrease in the cost of licenses resulted primarily from the hardware costs associated with decreased licenses of both FIREWALL/PLUS PREMIER VERSION and third party products. The decrease in cost of licenses as a percentage of license revenues was due to the change in product mix as license revenue from FIREWALL/PLUS PREMIER VERSION, which includes hardware, accounted for a lower percentage of license revenues in 1997. Amortization of software development costs increased by \$75,000 or 30%, from \$246,000 for 1996 to \$321,000 for 1997, representing 39% and 28% of license revenues, respectively. The increase in amortization of software development costs was due to the commencement of amortization of costs of Windows NT Version 3.0 of FIREWALL/PLUS upon its release in December 1996 and Version 4.0 upon its release in September 1997.

Cost of services increased by \$28,000 or 7%, from \$390,000 for 1996 to \$418,000 for 1997, representing 97% and 57% of service revenues, respectively. The decrease in cost of services as a percentage of service revenues was due primarily to the increase in service revenues which did not require increased personnel.

Gross profit increased from \$198,000 for 1996 to \$1,454,000 for 1997, representing 19% and 61% of revenues, respectively. The increase in gross profit was due to increased license revenue of \$508,000, and the receipt of a \$500,000 prepaid royalty in June 1997 and a \$334,000 increase in service revenue.

Product development expenses decreased by \$100,000 or 11%, from \$892,000 for 1996 to \$792,000 for 1997, representing 87% and 33% of revenues, respectively. The decrease in product development costs was due primarily to an increased portion of time spent by developers on the development of Windows NT Versions 3.0 and 4.0 of FIREWALL/PLUS and the capitalization of such costs. During 1996 and 1997, the

Company capitalized \$750,000 and \$850,000, respectively, of additional software development costs associated with the development and enhancement of its FIREWALL/PLUS family of products.

Sales and marketing expenses decreased by \$688,000 or 43%, from \$1,614,000 for 1996 to \$926,000 for 1997, representing 157% and 39% of revenues, respectively. The decrease in sales and marketing expenses in dollar amount was due primarily to a decrease in advertising expenses and the reduction of trade shows and related travel in the aggregate amount of \$633,000 due to the Company's lack of funds for sales and marketing. The decrease in sales and marketing expenses as a percentage of sales was due to the aforementioned factors, as well as the Company's significant increase in revenues.

General and administrative expenses decreased by \$358,000 or 19%, from \$1,931,000 for 1996 to \$1,573,000 for 1997, representing 188% and 66% of revenues for 1996 and 1997, respectively. The decrease in general and administrative expenses in dollar amount and as a percentage of revenues in 1997 was due primarily to a charge of \$518,000 related to the issuance of warrants to advisory board members in 1996 and reduced professional fees, recruiting fees, office supplies and stationary, repairs and maintenance contracts, travel and bad debt expenses, partially offset by higher salaries and depreciation.

Interest expense increased by \$293,000 or 113%, from \$260,000 for 1996 to \$553,000 for 1997, representing 25% and 23% of revenue for 1996 and 1997, respectively. The increase in interest expense was due primarily to increased amortization of debt discount as a result of the issuance of \$1,500,000 principal amount promissory notes and warrants to purchase 210,628 shares of Common Stock during 1997. Debt discount is amortized over the life of the debt instrument.

No provision for or benefit from federal, state or foreign income taxes was recorded for 1996 or 1997 because the Company incurred net operating losses for each year and fully reserved its deferred tax assets as their future realization could not be determined.

As a result of the foregoing, the net loss decreased by \$2,109,000 or 47%, from \$4,499,000 for 1996 to \$2,390,000 for 1997. LIQUIDITY AND CAPITAL RESOURCES

The Company's capital requirements have been and will continue to be significant, and its cash requirements have been exceeding its cash flow from operations. At June 30, 1998, the Company had \$634,000 of cash and cash equivalents and a working capital deficit of \$2,429,000. The Company has financed its operations primarily through private sales of equity and debt securities. Net cash used in operating activities was \$708,000 and \$848,000 during 1997 and the six months ended June 30, 1998, respectively. Net cash used in operating activities for 1997 was primarily attributable to a net loss of \$2,390,000 and an increase in accounts receivable of \$309,000 which was partially offset by increases in accounts payable, accrued expenses and other current liabilities of \$744,000, and amortization of debt discount of \$500,000 and depreciation and amortization of \$481,000. Net cash used in operating activities for the six months ended June 30, 1998 was primarily attributable to a net loss of \$1,990,000 and an increase in accounts receivable of \$192,000, partially offset by amortization of debt discount of \$364,000, issuance of Common Stock and warrants for services rendered of \$583,000 and depreciation and amortization of \$346,000.

The Company's operating activities during 1996, 1997 and the six months ended June 30, 1998 were financed primarily with \$3,948,000 of net proceeds from the sale of Common Stock with respect to a private placement completed in March 1996, \$1,500,000 of net proceeds from the issuance of \$1,500,000 principal amount of notes and warrants to purchase 210,628 shares of Common Stock in 1997 and \$1,750,000 of net proceeds from the issuance of \$1,750,000 principal amount of notes and warrants to purchase 325,919 shares of Common Stock during the six months ended June 30, 1998. Upon consummation of this offering, the entire principal amount of \$3,250,000 and interest accrued on such outstanding notes will be cancelled in exchange for the issuance of Series C Preferred Stock or repaid with

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proceeds from this offering. The Company will incur aggregate non-cash charges estimated to be \$668,000 relating to the amortization of debt discount with respect to \$3,250,000 principal amount promissory notes which will be repaid or cancelled in exchange for shares of Series C Preferred Stock. The Company does not currently have a line of credit from a commercial bank or other institution.

Simultaneously with the consummation of this offering, the Company, through its wholly-owned subsidiary, will acquire CommHome in exchange for 46,667 shares of the Company's Common Stock valued at \$280,000 plus the assumption of approximately \$200,000 of liabilities, of which \$105,000 will be satisfied with the issuance of 17,500 shares of the Company's Common Stock. Upon consummation of the acquisition, the Company will incur a charge for purchased research and development of \$469,000 representing the excess of the purchase price plus the assumed liabilities over the fair value of the tangible assets acquired of \$1,000. See "Business--CommHome Systems Corporation Acquisition."

The Company is dependent on the proceeds of this offering to implement its business plan and finance its working capital requirement. The Company anticipates, based on currently proposed plans and assumptions relating to the implementation of its business plan (including the timetable of, costs and expenses associated with, and success of, its marketing efforts), that the net proceeds of this offering, together with projected revenues from operations. will be sufficient to satisfy the Company's operations and capital requirements for approximately twelve months following the consummation of this offering. There can be no assurance, however, that such funds will not be expended prior thereto due to unanticipated changes in economic conditions or other unforeseen circumstances. In the event the Company's plans change or its assumptions change or prove to be inaccurate (due to unanticipated expenses, difficulties, delays or otherwise) or the net proceeds of this offering and projected revenues otherwise prove to be insufficient to fund the implementation of the Company's business plan or working capital requirements, the Company could be required to seek additional financing sooner than currently anticipated. The Company has no current arrangements with respect to any additional financing. Consequently, there can be no assurance that any additional financing will be available to the Company when needed, on commercially reasonable terms or at all. Any inability to obtain additional financing when needed would have a material adverse effect on the Company, requiring it to curtail and possibly cease its operations. In addition, any additional equity financing may involve substantial dilution to the interests of the Company's then existing stockholders.

# FLUCTUATIONS IN OPERATING RESULTS

The Company anticipates significant quarterly fluctuations in its operating results in the future. The Company generally ships orders for commercial products as they are received and, as a result, does not have any material backlog. As a result, quarterly revenues and operating results depend on the volume and timing of orders received during the quarter, which are difficult to forecast. Operating results may fluctuate on a quarterly basis due to factors such as the demand for the Company's products, purchasing patterns and budgeting cycles of customers, the introduction of new products and product enhancements by the Company or its competitors, market acceptance of new products introduced by the Company or its competitors and the size, timing, cancellation or delay of customer orders, including cancellation or delay in anticipation of new product introduction or enhancement. In addition, the Company's consulting revenues tend to fluctuate as projects, which may continue over several quarters, are undertaken or completed. Therefore, comparisons of quarterly operating results may not be meaningful and should not be relied upon, nor will they necessarily reflect the Company's future performance. Because of the foregoing factors, it is likely that in some future quarters the Company's operating results will be below the expectations of public market analysts and investors. In such event, the price of the Common Stock would likely be materially adversely affected.

Licensing of the Company's products generally involves a significant commitment of capital by customers, with the attendant delays frequently associated with large capital expenditures for complex technology. Accordingly, the sales cycle for the Company's products can be lengthy and generally

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commences at the time a prospective customer demonstrates an interest in licensing a FIREWALL/PLUS solution, typically includes a 30-day free evaluation period and ends upon execution of a purchase order by the customer. The length of the sales cycle varies depending on the type and sophistication of the customer and the complexity of the operating system and may extend for periods of six to nine months. As a result of the Company's lengthy sales cycle, license of the Company's products generally require the Company to make expenditures and use significant resources prior to receipt, if any, of corresponding revenues. YEAR 2000 ISSUE

The Company has assessed the potential software issues associated with the Year 2000 and believes its software products are Year 2000 compliant and,

therefore, does not expect to incur material costs related thereto. With regard to internal computing resources utilized in its operations, the Company does not expect to incur material costs to make such resources Year 2000 compliant.

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#### **OVERVIEW**

The Company develops, markets, licenses and supports a family of network security software products designed to provide comprehensive security to computer networks, including Internet based systems and internal networks and computing resources. The Company's FIREWALL/PLUS family of security software products enables an organization to protect its computer networks from internal and external attacks and to secure organizational communications over such internal networks and the Internet. The Company also offers its customers a full range of consulting services in network security and network design and support in order to build, maintain and enhance customer relationships and increase the demand for its software products.

The FIREWALL/PLUS family of security solutions is designed to protect against Internet and intranet (internal networks utilizing Internet technology and applications based upon TCP/IP--the Internet network transport protocol) based security threats and to address security needs that arise from within internal networks that often utilize other network transport protocols besides TCP/IP including, among others, Novell's IPX, Digital Equipment's DECnet and IBM's SNA. The Company's FIREWALL/PLUS family of firewall products operates on the Microsoft Windows NT operating system platform. FIREWALL/PLUS' proprietary Interceptor Shim and filter engine software technology, with its unique ability to handle and filter all commonly used network transport protocols, provide organizations with a highly secure and flexible security solution. Additionally, unlike most other firewall solutions which focus on an enterprise's connection to the Internet, the FIREWALL/PLUS solution can be deployed throughout the enterprise; at the perimeter to control access to and from the Internet, between internal networks and on application servers and desktop PCs to protect data residing on such servers and PCs. The Company's FIREWALL/PLUS for Windows NT received the 1997 Internet and Electronic Commerce Conference award for "Best Intranet Solution" and the 1997 ENT Magazine Readers Choice Award for "Best NT Firewall."

#### INDUSTRY BACKGROUND

A critical resource of every organization is its information and its ability to distribute and access information throughout the enterprise. Computing has moved from large centralized mainframes to distributed client/server architecture consisting of interconnected personal computers dispersed throughout an organization. Organizations utilize local area networks ("LANs") to share information and applications internally. Many organizations have connected LANs, including geographically dispersed networks, into wide area networks ("WANs"). In addition, the explosive growth in telecommuting has resulted in LANs and WANs frequently being accessed from remote locations via traditional modem dial-up, Integrated Services Digital Network ("ISDN") and recently introduced cable modems and Asymmetric Digital Subscriber Line ("ADSL") modems. There is a growing use of establishing these remote connections to an organization's central resources, via Internet links, rather than through dedicated point-to-point connections.

This evolution from mainframe computers supporting a number of terminals, towards networks of interconnected personal computers has resulted in a wide range of technologies from a multitude of vendors being used within internal networks in order to satisfy different enterprise computing requirements. As a result, heterogeneous networks utilizing a variety of network transport protocols are commonplace within LANs and WANs. Although TCP/IP has become a widely accepted network transport protocol due to the growth of the Internet and the popularity of TCP/IP applications for use within internal networks, network transport protocols such as IPX, DECnet, AppleTalk and SNA, among others, are still utilized throughout networked environments, and the Company believes such network transport protocols will continue to be utilized due to the large investments in installed systems and applications using these protocols. Further, computing environments often run one or more incompatible versions of

the same protocol suite for extended periods of time while converting to new versions or to support older

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applications or systems which cannot use the newer versions of a given protocol suite. In addition, Windows NT is shipped from Microsoft with four complete network transport protocols (IP, IPX, AppleTalk and NetBEUI) for use with NT when connected to a corporate network.

The Windows NT server market continues to grow and outpace sales of other popular non-NT-based servers. According to recent studies by International Data Corporation and Dataquest, in 1997, servers shipped with the Windows NT operating system exceeded shipments of servers utilizing other operating systems.

#### NETWORK SECURITY

Although open computing environments have many business advantages, their accessibility makes an organization's critical software applications and electronically stored data vulnerable to security threats. Open computing environments are inherently complex, typically involving a variety of hardware, operating systems, network transport protocols and applications supplied by a multitude of vendors, making these networks difficult to manage, monitor and protect from unauthorized access or attack. The security risk associated with network computing is complicated by the increasing popularity of the Internet, intranets and extranets (intranets which allow access to one or more users outside of the internal network). By connecting an internal private network to the Internet, unauthorized third parties are given a new means by which to access an organization's private network. The combination of TCP/IP with other commonly used network transport protocols within internal networks, increases the network security challenge because of the various avenues of attack available to both internal and external attackers.

As a result of the explosive growth in network computing and Internet use (as well as use of intranets and extranets), protection of an organization's network and data has become a significant economic concern for businesses. According to the 1997 Annual Information Week/Ernst & Young LLP Information Security Survey of information technology managers and professionals, 42% of the respondents reported malicious acts from external sources, as compared to 16% in the prior year, and 43% of the respondents reported malicious acts by employees as compared to 29% in the prior year. According to FBI estimates, U.S. companies suffer estimated losses of \$5 to \$10 billion per year as a result of unauthorized access to information and data. According to the 1998 CSI/FBI Computer Crime and Security Survey, 44% of the respondents reported unauthorized access by employees. The Company believes that securely segmenting internal network areas and computing resources from unauthorized access will become paramount to insuring the integrity of both the internal network and an organization's intranet and extranet resources.

# **FIREWALLS**

A firewall is a security solution that enables an organization to protect its computer resources from unauthorized access by internal and external users. Firewalls enforce security access control policies between a trusted network and an untrusted network. Only authorized traffic as defined by security policies is allowed access through the firewall. Firewalls are predominantly utilized today to provide security for a network's perimeter by preventing external breaches of the internal network (trusted network) from untrusted external sources (the public network).

Due to the significant growth in Internet connections, a number of companies have introduced firewall products ("IP Firewalls") designed primarily to protect an internal network using TCP/IP as the network transport protocol from Internet based security threats or threats from within intranets. IP Firewalls can also filter other network transport protocols used specifically with the IP routing protocol (such as UDP and ICMP). In addition, a limited number of IP Firewalls have limited filtering capabilities for a small number of non-IP based network transport protocols.

Firewalls can also serve to provide access control between individual sub-networks on an internal network or to control access between an internal network and a selected outside party authorized to have access to the internal network for limited purposes. IP Firewalls can accomplish this task to the

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TCP/IP is the network transport protocol being used within an internal network as is the case with intranets and extranets. To the extent other network transport protocols are utilized within such an internal network, IP Firewalls will disallow all data utilizing any such network transport protocol from passing through the firewall, thereby denying access entirely to a party which is intended to have such access. This reduces the effectiveness of IP Firewalls in a multi-protocol networked environment.

The Company's FIREWALL/PLUS family of security solutions is designed to address security needs that arise from within internal networks utilizing non-TCP/IP network transport protocols, including Novell's IPX, Digital Equipment Corporation's DECnet and IBM's SNA, as well as to protect against TCP/IP based Internet and intranet security threats addressed by IP Firewalls. The Company's FIREWALL/PLUS suite of products consists of a firewall designed to control access to an organization's internal network from the public networks (the "ENTERPRISE VERSION"), a firewall controlling access between the network and a trusted application server (the "SERVER VERSION") and a firewall controlling access between the network and a trusted client workstation (the "CLIENT VERSION").

The IP Firewall market is expected to continue to experience dramatic growth. International Data Corporation estimates that 1996 unit shipments of firewalls grew by more than 250%, compared with 1995, with 1996 revenues of approximately \$220 million. Unit sales of firewalls are expected to increase from 36,610 units or approximately \$220 million in 1996 to 1.1 million units or \$730 million in 2001. It is anticipated that unit prices of firewalls will experience a decline in the future because of increased competition. The Company believes that these projections do not take into account the need for firewalls to protect computing environments that do not rely exclusively on TCP/IP as the network transport protocol. While an organization generally requires a small number of firewalls to restrict vulnerability to TCP/IP based threats from the Internet, it may require numerous firewalls to protect internal networks from attacks from within the organization.

The Company believes that securely segmenting internal network areas and computing resources from unauthorized access will become paramount to insuring the integrity of both the internal network and an organization's intranet and extranet resources. The Company further believes that multiple network transport protocols will remain prevalent in computing environments because of the large installed base of non-IP based computer systems and applications. The FIREWALL/PLUS security solution is positioned to address the security issues faced by enterprises with multi-protocol networking environments seeking to prevent unauthorized access and attacks from the Internet, intranets and extranets and internal networks using network transport protocols other than TCP/IP.

# **NETWORK-1 STRATEGY**

The Company intends to pursue an aggressive growth strategy and to focus its efforts on marketing its FIREWALL/PLUS family of network security products. Key elements of the Company's strategy are:

- PROVIDE COMPREHENSIVE NETWORK SECURITY SOLUTIONS. The Company's strategy is to develop, market and support a family of network security products to address a broad range of security issues confronting computer networks and computing, including concerns arising from allowing access to the Internet as well as concerns relating to the security of internal networks. The Company's comprehensive approach to network security is based on its FIREWALL/PLUS technology, which offers robust security for data communications utilizing TCP/IP as well as other network transport protocols. The FIREWALL/PLUS family of firewall products currently includes the FIREWALL/PLUS ENTERPRISE VERSION, FIREWALL/PLUS SERVER VERSION and the FIREWALL/PLUS CLIENT VERSION.
- EMPHASIS ON INTERNAL NETWORK SECURITY. While FIREWALL/PLUS has the ability to protect an organization's computer network from Internet, intranet and extranet based security threats, the Company believes that its ability to filter multiple network transport protocols offers significant advantages as a security product for internal networks where multiple network transport protocols are common. Accordingly, the Company will seek to

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resources on the internal network security market. The Company intends to devote a significant portion of the proceeds of this offering for sales and marketing toward educating potential end users and third-party distributors as to the need to protect networks and computing resources from unauthorized access and attacks from within an internal network and the capabilities and benefits of the Company's products.

- ESTABLISH AND MAINTAIN SUCCESSFUL THIRD PARTY DISTRIBUTION RELATIONSHIPS. The Company's marketing plan includes a multi-channel distribution strategy which emphasizes establishing and maintaining third-party distributor relationships with systems integrators, VARs, OEMs and resellers in the United States and internationally. The Company intends to increase its internal sales and support organization following the consummation of this offering primarily to provide additional support to its third-party distributors.
- LEVERAGE CONSULTING CLIENTS. The Company has designed, planned, audited and implemented numerous networks worldwide for a broad spectrum of clients, including Fortune 500 companies, small companies with modest requirements, federal, state and foreign governments and utilities, as well as education and research institutions. The Company believes that its consulting clients provide a base of potential customers for its software products. In addition, the Company's consulting relationships may facilitate its development and enhancement of software products as the Company's consultants receive feedback and guidance directly from network administrators and other technical personnel regarding products and features needed in the marketplace. See "Business-- Consulting."

### FIREWALL/PLUS TECHNOLOGY

The Company's network security solutions are based upon its proprietary FIREWALL/PLUS technology which provides organizations with enterprise wide security to protect against unauthorized access from the Internet as well as security for internal sources of intrusion and breach. The following are key aspects of the Company's FIREWALL/PLUS solution:

ENTERPRISE-WIDE DEPLOYMENT. Unlike most other firewall solutions which focus on an enterprise's connection to the Internet, the FIREWALL/PLUS solution, as a result of its unique architecture, may be used throughout the enterprise; at the perimeter to control access to and from the Internet, between internal networks and on application servers, including web servers, and desktop PCs to protect data residing on such servers and PCs. While competing firewall solutions must be installed on dedicated computers, FIREWALL/PLUS can operate on a Windows NT desktop computer or application server without interfering with the normal operation of such desktop computer or server. As a result, the FIREWALL/PLUS security solution can be installed on existing strategic computing resources within the enterprise without incurring the expense of additional computing hardware.

MULTI-LAYER SECURITY. The architecture of Windows NT includes two operating modes, the "user" and "kernel" modes. The FIREWALL/PLUS solution is implemented in kernel mode to maximize performance and to provide maximum security from network intrusion to the operating system environment. Using proprietary kernel-level software code developed by the Company, FIREWALL/PLUS' Interceptor Shim and security filter engine technology introduce a security layer between the network hardware drivers and the Windows NT operating system. FIREWALL/PLUS filters all network traffic before it reaches Windows NT. Incoming data packets enter the network through the network interface card and its associated hardware driver and are immediately passed to the Interceptor Shim, which directs them to the FIREWALL/PLUS filter engine. The filter engine, using a proprietary high-speed, real-time security policy enforcement language, checks the packet and associated packet history against the security rule policy database to determine whether the packet should be allowed to enter the system. The Company believes that FIREWALL/PLUS' multi-layer approach to security strengthens Windows NT by providing a layer of security that filters packets before entering the Windows NT operating system.

inspection and application layer filtering technology to provide security for TCP/IP related network transport protocols and applications. Stateful filtering involves the knowledge of states of protocols at specific transaction intervals during the network connection between two communicating applications between specific systems. Transaction states occur at routing, transport, session control and application layers when two programs interoperate with each other over a computer network connection. When these states are defined to FIREWALL/PLUS, FIREWALL/PLUS can take actions on conditions that violate the required or expected stateful actions of one or a simultaneous series of protocols. Most firewalls have been based upon architectures incorporating either packet filtering or proxy filtering. FIREWALL/PLUS adopts a hybrid approach which incorporates frame, packet, application layer, proxy and stateful inspection capabilities in the security management of network connections. The Company believes that this hybrid approach allows the Company to offer a firewall product that maximizes security without sacrificing performance.

MULTI-PROTOCOL CAPABILITY. A unique aspect of FIREWALL/PLUS is its ability to provide multi-protocol filtering not available from network security products offered by other firewall vendors. FIREWALL/PLUS has the advantage of filtering not only TCP/IP, but also a multitude of other network transport protocols. The Company believes that the ability of FIREWALL/PLUS to filter multiple network transport protocols offers significant advantages as a security product for internal networks where multiple network transport protocols are common. FIREWALL/PLUS is capable of utilizing stateful inspection technology for numerous network transport protocols once the various "states" of such protocols are defined to FIREWALL/PLUS. The states of TCP/IP and several other of the more commonly used protocols are capable of being defined. For those protocols not capable of being defined, FIREWALL/PLUS performs frame, packet and application filtering. In a Windows NT based environment, it is typical for all commonly used multiple network transport protocols to co-exist, as Windows NT comes pre-equipped with TCP/IP, IPX (Novell), NetBEUI (LAN Manager) and AppleTalk. In addition, certain applications require the use of non-TCP/IP protocols to operate between sub-networks on a network. FIREWALL/PLUS' multi-protocol filtering capability is effective in supporting web servers on the Internet, intranets and extranets and other information provision systems that access information stored on mainframe computers via non-IP protocols. While some commercially available routers allow basic packet filtering for multiple network transport protocols, the Company believes its multi-protocol advanced filtering capabilities offer superior features to routing solutions such as a graphical user interface, extensive logging, reporting and alarming and security policy time management.

TRANSPARENCY. FIREWALL/PLUS may be operated in a transparent mode. In this mode, FIREWALL/PLUS has no network address (i.e. it is not visible on the network) and therefore can not be identified for attack. The Company believes that this feature provides additional security to the operating system because when a firewall has a network address, it can be located and is more susceptible to attack. FIREWALL/PLUS provides firewall protection while operating in transparent mode, except that certain features such as remote management, proxy support and virtual private networking are not functional.

CENTRALIZED MANAGEMENT. FIREWALL/PLUS allows for centralized management and monitoring that allows a network manager to manage and monitor a system from a local or remote location. Accordingly, large and geographically dispersed firewalls may be managed from a single location.

CUSTOMIZED SECURITY POLICIES. FIREWALL/PLUS also allows customized security policies for individual departments, applications and individual systems and personnel within the network. Network managers may apply security rules to any version of the FIREWALL/PLUS products so that individual systems, protocols, applications, frames and many other network entities are either explicitly denied or authorized access to specific applications and other network entities.

MULTI-PROTOCOL ENCRYPTION TUNNELS. Once firewalls are in place at multiple sites on a WAN or the Internet, the ability to establish encrypted communications links over these connections becomes possible,

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thereby reducing reliance on more costly dedicated telecommunications alternatives. FIREWALL/PLUS provides for integrated data encryption to protect communications over the Internet and other public networks from unauthorized access. Encryption tunnels, known as virtual private networks ("VPNs"), may be set up for any Windows NT based protocol to protect communications between

different locations of an organization's internal network or between different locations and selected customers, suppliers or strategic partners. FIREWALL/PLUS extends this ability such that VPNs may be formed between locations across the Internet irrespective of the transport protocol being tunneled. The Company currently resells VPN client solutions from Aventail Corporation in conjunction with FIREWALL/PLUS.

PROXY SUPPORT. Proxy based firewalls filter network traffic by running a separate software program that acts as a proxy for each application to be allowed through the firewall. These firewall solutions require the customer to purchase the proxies supplied by the vendor for the applications supported by the vendor's architectural model. As a result, the customer may not find all the required application proxies from a specific firewall vendor for all the application suites being used or may find that the proxies offered by the firewall vendor are not sufficient to support all the required security needs.

FIREWALL/PLUS includes several popular proxies in addition to frame, packet, application layer, proxy and stateful inspection capabilities. These proxies implement popular features for specific application types such as HTTP and FTP. The Company currently licenses HTTP and FTP proxies from Network Associates, Inc. FIREWALL/PLUS also allows the use of other third-party proxies in conjunction with or in lieu of proxies offered by the Company. FIREWALL/PLUS' architecture allows the Company to partner and include external or third-party proxies quickly and easily to suit a variety of security requirements. Additionally, custom-written proxies for a client-server architecture at a customer site may easily be added to the FIREWALL/PLUS system by adjusting security policy rule sets in the firewall database.

EASE OF USE. FIREWALL/PLUS was designed to be easily installed, configured and managed by a network manager with minimal or no security skills. FIREWALL/PLUS may be installed and configured by use of the graphical user interface ("GUI") by simply pointing and clicking the mouse. To facilitate implementation, FIREWALL/PLUS comes pre-programmed with a wide variety of frequently used default security policies which require the customer to simply select one of the rule-bases and save the selection. FIREWALL/PLUS does not utilize significant server resources and may therefore co-exist on the same server with other software applications on Windows NT. Unlike many other competitive firewall products offered today, FIREWALL/PLUS need not run on a separate dedicated server.

### **PRODUCTS**

The Company's family of FIREWALL/PLUS products offers a broad range of network security solutions. The FIREWALL/PLUS family of products includes the FIREWALL/PLUS ENTERPRISE VERSION, FIREWALL/PLUS SERVER VERSION and FIREWALL/PLUS CLIENT VERSION. The Company is currently shipping FIREWALL/PLUS VERSION 4.03. The Company first introduced the FIREWALL/PLUS ENTERPRISE VERSION for Windows NT in January 1997. As of August 31, 1998, the Company had licensed one or more of its FIREWALL/PLUS family of software products to over 180 customers. Revenue from FIREWALL/PLUS products accounted for 43%, 60% and 35% of the Company's revenues for the years ended December 31, 1996, 1997 and the six months ended June 30, 1998, respectively. Following the consummation of this offering, the Company expects that sales of its FIREWALL/PLUS products will account for an increasing percentage of revenues, reflecting the Company's intent to emphasize the development and marketing of its software products.

FIREWALL/PLUS ENTERPRISE VERSION. The FIREWALL/PLUS ENTERPRISE VERSION secures an organization's internal network against unwarranted intrusions from the Internet and is also used between major internal network components as well as between general access internal networks and special purpose networks such as process control, real-time and other sensitive access networks. The FIREWALL/PLUS ENTERPRISE VERSION includes extensive centralized and remote security management facilities, predefined security policy rules, multi-protocol VPN capabilities, authentication and encryption facilities, real time connection management and

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proxy services. The FIREWALL/PLUS ENTERPRISE VERSION supports Intel processors and Digital Equipment Corporation Alpha processors that support Windows NT. The FIREWALL/PLUS ENTERPRISE VERSION is available in scaleable models to support varying numbers of simultaneous connections for small to mid-size companies and in an unlimited session version, as well as a high-speed version. Additionally, the FIREWALL/PLUS ENTERPRISE VERSION is also available in a PREMIER VERSION

which includes the software installed on a high speed Alpha server running Windows NT. Based on the number of concurrent connections, the nature of the user's operating system and whether hardware is needed, the FIREWALL/PLUS ENTERPRISE VERSION is currently priced to end users between \$3,750 and \$20,000 for software only versions and from \$27,500 to \$30,000 for PREMIER VERSIONS, which include hardware and onsite technical support.

FIREWALL/PLUS SERVER VERSION. The FIREWALL/PLUS SERVER VERSION is designed to improve internal security of a LAN or intranet or to protect highly sensitive systems such as key escrow facilities, web servers, digital certificate servers, database servers and authentication servers. As a server firewall, this solution provides protection against unauthorized access to network resources by internal users, where security breaches often originate. The FIREWALL/PLUS SERVER VERSION co-exists on the server being protected and resides between the network users and the protected data. FIREWALL/PLUS SERVER VERSION treats all information on the server as secure and guarded, while treating network connections to the server as unsecure. FIREWALL/PLUS can be configured using the FIREWALL/PLUS GUI to allow access to certain users, to specific applications, during designated times and under a variety of conditions. The FIREWALL/PLUS SERVER VERSION incorporates all of the major features contained in the FIREWALL/PLUS ENTERPRISE VERSION. Any other applications including web, file and print services, may be run simultaneously on the server with the FIREWALL/PLUS SERVER VERSION installed and operating. The FIREWALL/PLUS CLIENT VERSION is currently priced to end users at \$1.995.

FIREWALL/PLUS CLIENT VERSION. The FIREWALL/PLUS CLIENT VERSION is a full featured firewall which has been specifically tailored to protect data residing on Windows NT workstations without disrupting current system operations. These workstations can run applications while the firewall maintains a high level of security. When a network attack is detected, it is immediately defeated prior to the attack being able to access the NT Workstation. The FIREWALL/PLUS CLIENT VERSION is designed to protect sensitive individual desktop computers (such as a network control station, a corporate executive's personal computer or the human resources personnel system) or telecommuter systems where high speed remote access lines are used (such as cable modems, ADSL and ISDN). The FIREWALL/PLUS CLIENT VERSION is currently priced to end users at \$995.

### **CUSTOMERS**

The Company's customers represent a wide range of industries, both commercial and government, which consider networked-data resources to be among the most important assets within their organizations. As of August 31, 1998, the Company had licensed one or more of its FIREWALL/PLUS family of products to over 180 customers. Customers for FIREWALL/PLUS products include The Sabre Group Inc., Electronic Data Systems Corporation ("EDS"), TRW, Inc., United Technologies, Inc., National Semiconductor Corp., Fairchild Semiconductor, Atlantic Richfield Company and related entities ("ARCO"), GTE, Inc., and Continental Airlines. During the year ended December 31, 1997, license revenues and royalties from TIS and EDS accounted for approximately 21% and 13% of the Company's revenues, respectively. During the six months ended June 30, 1998, license revenues from EDS and The Sabre Group, Inc. accounted for 10% and 9% of the Company's revenues, respectively.

Examples of the varied uses of the Company's products by customers include:

- An industry leading system integrator uses ENTERPRISE VERSIONS of FIREWALL/PLUS to secure access and communications to and from its facilities management personnel and their customers to manage the networks of one of the largest telecommunications companies. The FIREWALL/PLUS ENTERPRISE VERSIONS are used as perimeter defenses on the company's internal backbone, which supports more than 900 outside clients.

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- A leading travel service company utilizes multiple FIREWALL/PLUS ENTERPRISE and SERVER VERSIONS internally to securely filter non-TCP/IP network transport protocols between various segments of the internal network. In addition, the company functions as a service company and systems integrator dealing with many of the industry's largest travel related companies and has installed multiple FIREWALL/PLUS ENTERPRISE VERSIONS to interconnect to customer sites.

- A worldwide petrochemical company currently uses FIREWALL/PLUS ENTERPRISE VERSION to secure data at multiple sites from internal and external breaches. Disparate network transport protocols, including TCP/IP and Novell's IPX, are securely and routinely sent from multiple data centers (each using FIREWALL/PLUS) throughout the country to a center of operations while FIREWALL/PLUS insures the integrity of the data.

The Company believes that the FIREWALL/PLUS security solution is a scaleable product which satisfies customers' needs to secure the perimeter and internal resources within their organizations. The Company further believes that currently available IP Firewalls are not as flexible with respect to both internal and external security as the FIREWALL/PLUS solution.

During the years ended December 31, 1996 and 1997 and the six months ended June 30, 1998, license revenue from international customers (licenses to foreign end users and international distributors) accounted for 7%, 16% and 2% of the Company's revenues, respectively. All of the Company's revenues from international licenses were denominated in U.S. dollars. The Company anticipates that revenues from international customers will account for an increasing percentage of the Company's revenues in the future.

### SALES AND MARKETING

The Company is in the process of implementing a sales and marketing plan which consists of a multi-channel distribution strategy and a promotion strategy to create consumer awareness of the Company and its FIREWALL/PLUS products and to educate the market about the need to implement network security products and of the capabilities and benefits of the Company's FIREWALL/PLUS products.

### MULTI-CHANNEL DISTRIBUTION

IN-HOUSE SALES FORCE. The Company's internal sales force consists of five persons, consisting of a Vice President of International Sales, a Vice President of Business Development, two sales representatives and a sales engineer. The Company's sales representatives are responsible for soliciting potential customers and providing technical support to customers, as well as supporting third-party distribution channels. To date, the Company's internal sales force has not undertaken significant marketing efforts relating to product commercialization.

Following the consummation of this offering, the Company intends to retain a Vice-President of Sales to oversee the Company's domestic sales and marketing efforts and approximately 9 additional sales representatives in connection with the expansion of the Company's marketing efforts. Although the Company's in-house sales force will continue to solicit potential customers, its primary responsibility is expected to be supporting third-party distribution channels.

THIRD-PARTY DISTRIBUTION CHANNELS. A key element of the Company's distribution strategy is to establish and maintain relationships with third-party distributors within the United States and internationally. By engaging such third-party distributors, the Company is able to utilize the end-user sales and support infrastructure of these channels.

The Company currently has relationships with 22 national, regional and local systems integrators, VARs and resellers in the United States, including EDS, Wang Laboratories, Inc. and BDM International, Inc. In November 1997, the Company entered into a Master Software License Agreement with EDS pursuant to which EDS has the non-exclusive right on a worldwide basis to use, market and distribute the

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Company's FIREWALL/PLUS family of products including the right to promote and resell such products in conjunction with providing systems integration, outsourcing or facilities management services to its customers. The Company also currently has relationships with international system integrators, VARs, resellers and distributors in 25 countries, including Japan, Germany, Canada, United Kingdom, Republic of China, Hong Kong, Russia, Taiwan, Korea, Singapore, Malaysia, Indonesia, Thailand and Turkey.

The Company's agreements with distributors generally grant the distributor the right to market the Company's products in specified territories on a non-exclusive basis, are terminable on short notice and do not prohibit the distributor from selling products that are competitive with the Company's products.

The Company intends to continue to seek to establish relationships with additional third-party distributors, principally larger system integrators and VARs with the necessary resources to successfully distribute the Company's FIREWALL/PLUS products. For the year ended December 31, 1997, TIS, EDS and ARCO accounted for 21%, 15%, and 13%, respectively, of the Company's revenues and for the six months ended June 30, 1998, The City of Hope, EDS and The Sabre Group, Inc. accounted for 32%, 17% and 11%, respectively, of the Company's revenues. The Company's five largest distributors accounted for an aggregate of approximately 28% and 25% of the Company's revenues for the year ended December 31, 1997 and the six months ended June 30, 1998, respectively.

The Company also seeks to enter into OEM or licensing arrangements whereby the Company grants to an OEM or other third party the right to incorporate and/or bundle a specific technology of the Company with the OEM's or other third-party's products. In June 1997, the Company entered into a license agreement with TIS, which was subsequently acquired by Network Associates, Inc., pursuant to which the Company licensed to TIS on a non-exclusive basis the right to incorporate and/or bundle the Company's Interceptor Shim software with TIS' family of Gauntlet-TM- firewall products. The Company received a \$500,000 non-refundable pre-paid royalty in June 1997. As a result of such pre-paid royalty, royalties from TIS accounted for 21% of the Company's revenues for the year ended December 31, 1997. In October 1998, Network Associates, Inc. (which acquired TIS) terminated the license agreement effective December 31, 1998. The Company expects that its arrangements with third-party distributors and OEMs will account for an increased percentage of its revenues in the future.

### ADVERTISING AND PROMOTION

Following the consummation of this offering, the Company intends to implement an advertising and promotion strategy to create consumer awareness of the Company and its FIREWALL/PLUS products and to educate the market about network security threats and FIREWALL/PLUS' ability to address customers' needs. To date, the Company has engaged in limited advertising and promotion of its products through its website, trade publications and published product reviews. The Company intends to use a portion of the proceeds of this offering to advertise and promote its products through print advertising, Internet website advertising, direct marketing efforts and participation in trade shows and seminars which target organization security and management information system administrators and network system integrators.

The Company's website, www.network-1.com, includes a description of the Company's FIREWALL/PLUS family of products and enables visitors to the site to download a 50-session FIREWALL/PLUS ENTERPRISE VERSION for a 30-day trial. The Company intends to use a portion of the proceeds of this offering to add content to the website, such as product information, including a user guide, network security industry information and additional content specific to distributors and end users; improve download capabilities for the trial version; and enable purchases via the website.

## CONSULTING

The Company has designed, planned, audited and implemented numerous networks worldwide for a broad spectrum of clients, including Fortune 500 companies, small companies with modest requirements, federal, state and foreign governments and utilities, as well as education and research institutions.

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Mr. William Hancock, the Company's Chief Technology Officer and a director, is an industry expert who has authored networking and security books and has been a featured columnist as well as a network and security editor for a number of industry journals. The Company intends to expand its consulting activities following the consummation of this offering by utilizing the expertise of Mr. Hancock to create opportunities for consulting through speaking engagements at industry conferences, seminars and trade shows.

Historically, the Company has offered a wide range of consulting services designed to provide solutions to networking and security problems. Such consulting services have included network surveys, network designs and traffic modeling, security penetration studies, security breach investigation, network and computer forensics services, hacker prosecutions (in connection with federal and local law enforcement agencies) and network security technical audits among other services. The Company generally provides its consulting clients with a comprehensive report containing detailed findings and recommendations. The Company offers its consulting services on a per hour or per project basis.

The Company's consulting clients have included, among others, EDS, MCI Communications Corp., Kraft General Foods, Inc., Alcoa Aluminum Company of America, TIA-CREF, Southwestern Bell Telephone Co., Chemical Bank Corp., Hewlett Packard Co., American Airlines, Inc., Bechtel Corporation, ARCO, United Technologies Sikorsky Aircraft, Bowne, Inc., and the U.S. Government, including The Environmental Protection Agency.

Consulting services generated 35%, 25% and 47% of the Company's revenues for the years ended 1996 and 1997 and the six months ended June 30, 1998, respectively. Consulting revenues from ARCO accounted for 9% of the Company's revenues for the year ended December 31, 1997 and consulting revenues from The City of Hope accounted for 28% of the Company's revenues for the six months ended June 30, 1998. Following the consummation of this offering, the Company expects that consulting services will account for a decreasing percentage of revenues as the Company continues to focus its efforts on developing and marketing its network security software products.

### CUSTOMER SERVICE AND SUPPORT

The Company believes that customer service and support is critical to retaining customers and attracting prospective customers. The Company provides customer service and support through its internal technical support staff of 5 persons located at its Grand Prairie, Texas office. Customers receive a 90-day warranty, which includes technical assistance and product updates. To date, the Company has not incurred any material warranty expense. Following the expiration of the 90-day warranty, customers can elect to purchase the Company's annual maintenance program at an average annual cost of 15% of the then current purchase price. The maintenance program includes technical assistance and support, product updates and general information relating to product introductions and changes. Technical support is available 24 hours a day, 7 days a week, by telephone and electronic mail. In addition, the Company provides customers with fee-based on-site installation, support and training. The Company provides its resellers with sales and technical support.

### PRODUCT DEVELOPMENT

The Company believes that development of new products and enhancements to existing products are essential for the Company to effectively compete in the network security market. The Company's product development efforts are directed toward enhancing its FIREWALL/PLUS family of security products, developing new products and responding to emerging industry standards and other technological changes. The Company intends to expand its existing product offerings and to introduce new application products for the network security market. The Company's new product development efforts are focused on enhancements to the Company's current suite of products and new network security products, including products that support Windows 95/98 operating systems. While the Company expects that certain of its new products will be developed internally, the Company may, based on timing and cost considerations, expand

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its product offerings through acquisitions. In addition, the Company has relied and will continue to rely on external development resources for the development of certain of its products and components.

The Company currently has six employees devoted to research and product development. However, historically, a substantial portion of the Company's research and development activities have been undertaken by engaging third-party consultants and independent contractors. During the years ended December 31, 1996 and 1997 and six months ended June 30, 1998, the Company's total product development costs, including capitalized costs, were \$1,642,000, \$1,642,000 and \$333,000, respectively.

The Company intends to hire and retain approximately 12 additional software engineers and developers on a full-time basis within twelve months following the consummation of this offering and has allocated approximately \$1,310,000 of the net proceeds of this offering to software development.

The network security industry is characterized by rapid technological change, changes in customer requirements, frequent new product introductions and enhancements, new and continuously evolving network security threats and attack methodologies and evolving industry standards in computer hardware and software technology. As a result, the Company must continually change and improve its products in response to such advances and changes in operating systems, application software, computer and communications hardware, networking software, programming tools and computer language technology. The introduction of products embodying new technologies and the emergence of new industry standards may render existing products obsolete or unmarketable.

The Company's future operating results will depend upon the Company's ability to enhance its current products and to develop and introduce new products on a timely basis that address the increasingly sophisticated needs of the marketplace and that keep pace with technological developments, new competitive product offerings and emerging industry standards. There can be no assurance that the Company will be successful in developing and marketing new products or product enhancements that respond to technological change and evolving industry standards and customer requirements, that the Company will not experience difficulties that could delay or prevent the successful development, introduction and marketing of these products, or that any new products and product enhancements will adequately meet the requirements of the marketplace and achieve market acceptance. In the event that the Company does not respond adequately to the need to develop and introduce new products or enhancements of existing products in a timely manner in response to changing market conditions or customer requirements, the Company's business, operating results and financial condition will be materially adversely affected.

### COMPETITION

The network security market in general, and the firewall product market in particular, is characterized by intense competition and rapidly changing business conditions, customer requirements and technologies. The Company believes that the principal competitive factors affecting the market for network security products include security effectiveness, name recognition, scope of product offerings, product features, distribution channels, price, ease of use and customer service and support. Currently, the Company's principal competitors include AXENT Technologies Inc., Bay Networks, Inc. (a subsidiary of Northern Telecom Limited), CheckPoint Software Technologies, Ltd., Cisco Systems, Inc., Compaq Computer Corporation, Cyberguard Corp., International Business Machines Corporation, ISS Group, Inc., Microsoft Corporation, Network Associates, Inc. and Secure Computing Corporation. Due to the rapid expansion of the network security market, the Company may face competition from new entrants.

Most of the Company's current and potential competitors have longer operating histories, greater name recognition, larger installed customer bases and possess substantially greater financial, technical and marketing and other competitive resources than the Company. As a result, the Company's competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements or devote greater resources to the promotion and sale of their products than the Company. While the Company believes that its firewall products do not compete against manufacturers of other types of

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security products (such as encryption and authentication products), there can be no assurance that potential customers will not perceive the products of such other companies as substitutes for the Company's products. In addition, certain of the Company's competitors may determine for strategic reasons to consolidate, to substantially lower the price of their network security products or to bundle their products with other products, such as hardware or other enterprise software products. Accordingly, it is possible that new competitors and alliances among competitors may emerge and rapidly acquire significant market share. There can be no assurance that the Company's current and potential

competitors will not develop products that may be more effective than the Company's current or future products or that the Company's products would not be rendered obsolete or less marketable by evolving technologies or changing consumer demands or that the Company will otherwise be able to compete successfully. Increased competition for firewall products may result in price reductions, reduced gross margins and adversely effect the Company's ability to gain market share, any of which would adversely affect the Company's business, operating results and financial condition.

### PROPRIETARY RIGHTS

The Company's success is substantially dependent on its proprietary technologies. The Company does not hold any patents and relies on copyright and trade secret laws, non-disclosure agreements with employees, distributors and customers, including "shrink wrap" license agreements that are not signed by the customer, and technical measures to protect the ideas, concepts and documentation of its proprietary technologies and know-how to protect its intellectual property rights. Such methods may not afford complete protection. and there can be no assurance that third parties will not independently develop substantially equivalent or superior technologies or obtain access to the Company's technologies, ideas, concepts and documentation. In addition, there can be no assurance that any confidentiality agreements between the Company and its employees, distributors or customers will provide meaningful protection for the Company's proprietary information in the event of any unauthorized use or disclosure. Any inability to protect its proprietary technologies could have a material adverse effect on the Company. Furthermore, the Company may be subject to additional risk as it enters into transactions in countries where intellectual property laws are not well developed or are poorly enforced. Legal protection of the Company's rights may be ineffective in such countries.

The Company also licenses from a third party certain proxy technology which is incorporated into its FIREWALL/PLUS products. The Company is dependent in part on its ability to continue to license such technology. Any inability of the Company to be able to continue to utilize such technology either as a result of the Company's breach or the termination of a license agreement or otherwise, in the absence of similar available technologies, could have a material adverse effect on the Company.

The Company received a U.S. trademark registration for the FIREWALL/PLUS name in December 1996. Although the Company is not aware of any challenges to the Company's rights to use this trademark, there can be no assurance that the use of this mark would be upheld if challenged.

Although the Company believes that its technologies and products have been developed independently and do not infringe upon the proprietary rights of others, there can be no assurance that the Company's technologies and products do not and will not so infringe or that third parties will not assert infringement claims against the Company in the future. The Company is not aware of any patent infringement charge or any violation of other proprietary rights claimed by any third party relating to the Company or the Company's products. In response to certain public statements made by CheckPoint Software Technologies, Ltd. related to a patented technology referred to as "stateful inspection" (the "Checkpoint Patent"), the Company retained patent counsel in April 1997 to review the Checkpoint Patent as compared to the Company's intellectual property and associated products. Based upon the opinion of the Company's intellectual property counsel, the Company does not believe that the CheckPoint Patent will have a material adverse effect on the Company. If, however, the Company's technologies or products were deemed to infringe upon the Checkpoint Patent, or if the Company's technologies or

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products were deemed to infringe upon the proprietary rights of other third parties, the Company could become liable for damages or be required to modify its products or to obtain a license.

As the number of security products being offered continue to increase the functionality of such products may further overlap, which could result in increased infringement claims by software developers, including infringement claims against the Company with respect to future products. There can be no assurance that the Company would be able to modify its products or obtain a license in a timely manner, upon acceptable terms and conditions, or at all, or that the Company will have the financial or other resources necessary to defend a patent infringement or other proprietary rights infringement action. Failure

to do any of the foregoing could have a material adverse effect on the Company, including possibly requiring the Company to cease marketing its products.

### COMMHOME SYSTEMS CORPORATION ACQUISITION

On September 11, 1998, the Company entered into a merger agreement with CommHome, effective upon consummation of this offering, pursuant to which the CommHome stockholders have agreed to exchange all of the outstanding common stock of CommHome for 46,667 shares of Common Stock of the Company valued at \$280,000. Pursuant to the merger agreement, the Company has agreed to assume approximately \$200,000 of liabilities of CommHome, which include \$55,000 and \$50,000 owed to Avi A. Fogel and Robert P. Olsen, respectively. Messrs. Fogel and Olsen have agreed to accept 9,167 and 8,333 shares of Common Stock, respectively, in full satisfaction of such indebtedness. Mr. Fogel, President, Chief Executive Officer and a director of the Company, is also President, Chief Executive Officer and a director of CommHome and owns 51% of the outstanding shares of CommHome. Mr. Olsen, Vice President of Product Management of the Company, is the former Vice President of Marketing of CommHome. See "Certain Transactions."

CommHome, incorporated in June, 1997, is a development stage company that has not achieved revenues from operations. At June 30, 1998, CommHome had a stockholders' deficiency of \$188,831 and an accumulated deficit of \$188,861. Upon consummation of the CommHome Acquisition, the Company will incur a charge for purchased research and development of \$469,000, representing the excess of the purchase price plus the assumed liabilities over the fair value of the tangible assets acquired of \$1,000.

CommHome is engaged in the design and development of residential networking solutions for high speed Internet access to the home. CommHome's designs are intended to provide easy access to the Internet throughout the home. These solutions include secure connections to high speed networking technologies, such as ADSL and cable modem technology, and easy distribution at all phone connections. It is currently expected that CommHome's designs will be incorporated into the Company's future security products.

### **EMPLOYEES**

As of October 20, 1998, the Company had 24 full time employees, including 6 in sales and marketing, 6 in product research and development, 8 in consulting and technological support and 4 in administration and finance. None of the Company's employees is represented by a labor union or is subject to a collective bargaining agreement. The Company has not experienced any work stoppages and considers its relationship with its employees to be good.

Competition with respect to the recruiting of highly qualified personnel in the software industry is intense and many of the Company's competitors have significantly greater resources than the Company. The Company's ability to attract and assimilate new personnel will be critical to the Company's performance and there can be no assurance that the Company will be successful in attracting or retaining the personnel it requires to enhance its products, develop new products and conduct its operations successfully.

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### **FACILITIES**

The Company currently subleases on a month-to-month basis approximately 700 square feet of office space in Wellesley Hills, Massachusetts for its principal executive offices. Following the consummation of this offering, the Company intends to lease new principal executive offices in the Boston, Massachusetts area. The Company's technical support, warehouse and distribution facilities are located in Grand Prairie, Texas, where the Company leases approximately 7,500 square feet pursuant to a written lease which expires on July 31, 1999.

### LEGAL PROCEEDINGS

The Company is not a party to any material legal proceedings.

### 45 MANAGEMENT

### **EXECUTIVE OFFICERS AND DIRECTORS**

The executive officers and directors of the Company are as follows:

<table></table>	
<caption></caption>	
NAME	AGE POSITION
<s> <c></c></s>	<c></c>
Avi A. Fogel	44 President, Chief Executive Officer and Director
William Hancock	41 Chief Technology Officer and Director
Robert P. Olsen	44 Vice President of Product Management
Murray P. Fish	47 Chief Financial Officer
Joseph A. Donohue	. 45 Vice President of Engineering
Joseph D. Harris	42 Vice President of International Sales
Robert M. Russo	48 Vice President of Business Development and Secretary
Corey M. Horowitz	. 43 Chairman of the Board of Directors
Marcus J. Ranum	35 Director
Barry Rubenstein	55 Director
Irwin Lieber	59 Director

  |AVI A. FOGEL has served as President, Chief Executive Officer and a director since May 1998. From March 1998 until May 1998, Mr. Fogel served as a consultant to the Company. From June 1997 until the consummation of this offering, Mr. Fogel served as President and Chief Executive Officer of CommHome, a development stage company engaged in the business of developing residential networking solutions, which he co-founded in June 1997. From January 1997 to June 1997, Mr. Fogel was engaged in pre-incorporation activities related to CommHome. Effective upon the consummation of this offering, CommHome will be acquired by the Company. From October 1995 to December 1996, Mr. Fogel was employed by Digital Equipment Corp. as Vice President, Global Marketing. From July 1994 to October 1995, Mr. Fogel was Executive Vice President, Global Marketing and Business Development of LANNET Data Communications, Ltd., a manufacturer of LAN switching hubs located in Tel Aviv, Israel. From July 1990 to July 1994, Mr. Fogel served as President and Chief Executive Officer of LANNET, Inc., the U.S. subsidiary of LANNET Data Communications, Ltd.

WILLIAM HANCOCK co-founded the Company and has served as its Chief Technology Officer since May 1998 and as a director since inception. From inception until May 1998, Mr. Hancock served as Executive Vice President and Secretary. Mr. Hancock is a leading international expert in computer and network design and security with over 20 years of experience in computer science, network technologies and electrical engineering. From June 1982 to July 1990, Mr. Hancock was an independent computer and networking consultant to Fortune 500 companies, including Digital Equipment Corporation, AT&T and IBM. Mr. Hancock participated in the operating system and network design teams at both Digital Equipment Corporation and IBM. He was instrumental in the design and selection of the Integrated System Digital Network plug connector and is the author of the implementation of the RSA encryption algorithm for the CCITT X.32 network standard. Mr. Hancock has been involved in the architecture and writing of the networking and security standards for the International Organization for Standardization. Mr. Hancock is a Certified Information Systems Security Professional.

ROBERT P. OLSEN has served as Vice President of Product Management since May 1998. From March 1998 until May 1998, Mr. Olsen served as a consultant to the Company. From July 1997 to December 1997, Mr. Olsen served as Vice President of Marketing of CommHome. From July 1996 to July 1997, Mr. Olsen was Vice President of Marketing for Netphone, Inc., a developer of computer servers. From December 1991 to June 1996, Mr. Olsen was Vice President of Marketing for Agile Networks, Inc., a

MURRAY P. FISH has served as Chief Financial Officer since May 1998. From August 1997 to May 1998, Mr. Fish was an independent financial consultant. From April 1991 to August 1997, Mr. Fish served as President, Chief Executive Officer and a director of RealWorld Corporation, a manufacturer of accounting software. From March 1989 to April 1991, Mr. Fish served as Vice President and Controller of Goldman Financial Group, Inc., a manufacturer of chemical and machine tools.

JOSEPH A. DONOHUE has served as Vice President of Engineering since July 1998. From April 1987 to July 1998, Mr. Donohue was employed by Stratus Computer Inc., having held the positions of Director-- Windows/NT Software Development from November 1997 to July 1998, Director--Proprietary OS from July 1994 to November 1997 and Manager--Kernel Development from July 1993 to July 1994. From April 1987 to July 1993, Mr. Donohue was employed by Stratus Computer, Inc. in various engineering positions.

JOSEPH D. HARRIS has served as Vice President of International Sales since August 1998. From November 1996 until August 1998, Mr. Harris served as Vice President of Sales and Managing Director-- Asia Pacific of Proginet Corporation, a developer of cross-platform database technologies. From October 1990 until November 1996, Mr. Harris served as President and Chief Executive Officer of KnowledgeNet Incorporated, a company also engaged in development of cross-platform database technologies, which he founded. Mr. Harris also served as Director of Architecture for System Software Associates, Inc., a developer of business planning software, from January 1988 to October 1990.

ROBERT M. RUSSO co-founded the Company and has served as Vice President of Business Development and Secretary since May 1998. Mr. Russo served as President and a director of the Company from inception until May 1998, and as Chief Operating Officer of the Company from December 1993 to May 1998. From May 1987 to June 1990, Mr. Russo served as Vice President of Sales and Marketing of Essential Resources, Inc., a computer consulting and training company. From December 1979 to February 1987, Mr. Russo served as President of the North American Division of H&M Systems Software, Inc., a software developer.

COREY M. HOROWITZ became Chairman of the Board of Directors of the Company in January 1996 and has been a member of the Board of Directors since April 1994. Mr. Horowitz is a private investor and President and sole shareholder of CMH Capital Management Corp., a New York investment advisory and merchant banking firm, which he founded in September 1991. From January 1986 to February 1991, Mr. Horowitz was a general partner in charge of mergers and acquisitions at Plaza Securities Co., a New York investment partnership. From July 1984 to December 1985, Mr. Horowitz was a general partner at Lafer Amster & Co., an investment partnership. From August 1980 to June 1984, Mr. Horowitz was an associate at the New York law firm of Skadden, Arps, Slate, Meagher & Flom.

MARCUS J. RANUM has served as a director of the Company since June 1998. Mr. Ranum currently serves as President and Chief Executive Officer of Network Flight Recorder, Inc., a development stage networking software company which he founded in March 1996. From October 1994 to February 1996, Mr. Ranum served as Chief Scientist and Executive Manager of V-One Corporation, a company engaged in the development and marketing of network security products. From June 1994 to October 1994, he served as a consultant in network security, software analysis and testing, software development and related matters. From November 1992 to June 1994, Mr. Ranum served as Senior Scientist of Trusted Information Systems, Inc. From August 1991 to November 1993, Mr. Ranum served as a consultant to Digital Equipment Corporation.

BARRY RUBENSTEIN has served as a director of the Company since July 1998. During the period March 1996 until July 1998, Mr. Rubenstein served as a member of the Company's advisory board. Since June 1994, Mr. Rubenstein has served as President, a director and a shareholder of InfoMedia Associates,

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Ltd., which is a general partner of the 21st Century Communications Partners, L.P. and affiliated partnerships. Mr. Rubenstein also serves as Chief Executive Officer of Wheatley Partners, L.L.C., the general partner of Wheatley Partners, L.P. and a general partner of Wheatley Foreign Partners, L.P. He is also a general partner of Applewood Associates, L.P., Seneca Ventures and Woodland Venture Fund, each of which is an investment partnership. Prior to his experience as an investor, Mr. Rubenstein served as a co-founder of several technology companies, including Applied Digital Data Systems, Inc., Cheyenne

Software, Inc. and Novell, Inc. Mr. Rubenstein also serves as a director of Infonautics, Inc., The Millbrook Press, Inc., Source Media, Inc. and USWeb Corporation.

IRWIN LIEBER has served as a director of the Company since July 1998. During the period March 1996 until July 1998, Mr. Lieber served as a member of the Company's advisory board. Since 1979, he has served as Chairman and Chief Executive Officer of GeoCapital LLC, an investment advisory firm which he founded. Mr. Lieber is also a general partner of Applewood Associates, L.P., and a principal of 21st Century Communications, L.P., each of which is an investment partnership. Mr. Lieber also serves as President of Wheatley Partners, LLC, the general partner of Wheatley Partners, L.P. and a general partner of Wheatley Foreign Partners, both of which are investment partnerships. Mr. Lieber also serves as a director of LeaRonal Inc. and Giga Information Group, Inc.

All Directors serve until the next annual meeting of stockholders and the election and qualification of their successors. Executive officers are elected by, and serve at the discretion of, the Board of Directors. Corey M. Horowitz was elected a director pursuant to a stockholders' agreement which provided that certain principal stockholders agreed to vote their shares to elect Mr. Horowitz to the Board of Directors. The stockholders' agreement terminates upon the effective date of the offering. There are no family relationships among any of the Company's directors or executive officers.

The Company has agreed, for a period of five years from the date of this Prospectus, if so requested by the Underwriter, to nominate and use its best efforts to elect a designee of the Underwriter as a director of the Company or, at the Underwriter's option, as a non-voting advisor to the Company's Board of Directors. The Company's officers, directors and principal stockholders have agreed to vote their shares of Common Stock in favor of such designee. The Underwriter has not yet exercised and currently does not intend to exercise its right to designate such a person.

### **BOARD COMMITTEES**

In August 1998, the Board of Directors established an Audit Committee, consisting of Irwin Lieber, Marcus Ranum and Avi Fogel, and a Compensation Committee, consisting of Corey M. Horowitz and Barry Rubenstein. The Audit Committee will review the qualifications of the Company's independent auditors, make recommendations to the Board of Directors regarding the selection of independent auditors, review the scope, fees and results of any audit, and review non-audit services and related fees provided by the independent auditors. The Compensation Committee will be responsible for determining compensation for the executive officers of the Company, including bonuses and benefits, and will administer the Company's compensation programs, including the Stock Option Plan.

The Board of Directors does not have a nominating committee. The selection of nominees for the Board of Directors is made by the entire Board of Directors. The Board of Directors may from time to time establish other committees to facilitate the management of the Company.

### DIRECTOR COMPENSATION

To date, directors of the Company have received no cash compensation for their services as directors. The Company does not currently compensate directors who are also employees of the Company for service on the Board of Directors. All Directors are reimbursed for their expenses incurred in attending meetings of the Board of Directors and its committees. Each non-employee director first joining the Board of Directors in the future will be granted an option to purchase 20,000 shares of Common Stock when such

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director is first elected or appointed to the Board of Directors, with the option shares vesting over a one year period in equal quarterly amounts, under the Stock Option Plan. In addition, each non-employee director will receive an automatic option grant to purchase 5,000 shares of Common Stock on each year anniversary that such director is a member of the Board of Directors with the option shares vesting over a one year period in equal quarterly amounts, under the Stock Option Plan. All option grants to non-employee directors will be at a per share exercise price equal to the fair market value of the Common Stock at the time of grant. See "Management--Stock Option Plan."

### **EXECUTIVE COMPENSATION**

The following table sets forth the compensation paid by the Company in all capacities during the year ended December 31, 1997 to its then President and Chief Operating Officer and to each of its executive officers whose compensation for such year exceeded \$100,000.

### SUMMARY COMPENSATION TABLE

<TABLE> <CAPTION>

> LONG TERM COMPENSATION **AWARDS**

ANNUAL COMPENSATION SHARES

YEAR ENDED ------ UNDERLYING ALL OTHER NAME AND PRINCIPAL POSITION(1) DECEMBER 31, SALARY (\$) BONUS (\$) OPTIONS(#) COMPENSATION <C> <C> <C>  $\langle S \rangle$ <C> <C> 1997 \$ 145,000(2) --Robert Russo,..... President and Chief Operating Officer William Hancock,.... 1997 160.000(3) Executive Vice President Peter Mearsheimer,.... 21,728 1997 155,000(4) Vice President of Sales </TABLE>

- (1) Does not include the following executive officers who were employed by the Company beginning in 1998 and are receiving annual compensation in excess of \$100,000: Avi A. Fogel, President and Chief Executive Officer; Robert P. Olsen, Vice President of Product Management; Murray P. Fish, Chief Financial Officer; Joseph D. Harris, Vice President of International Sales; and Joseph A. Donohue, Vice President of Engineering. See "Employment Agreements."
- (2) Includes \$51,692 of deferred salary.
- (3) Includes \$6,154 of deferred salary.
- (4) Includes \$5,962 of deferred salary. Effective August 1998, Mr. Mearsheimer was no longer employed by the Company.

The following table provides information relating to stock options awarded to each of the executive officers during the year ended December 31, 1997. All such options were awarded under the Stock Option Plan.

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	OPTION GRANTS IN 1997					
<\$>	<c> <c> <c> <c></c></c></c></c>					
	NUMBER OF % OF TOTAL					
	SHARES OPTIONS GRANTED TO EXERCISE UNDERLYING EMPLOYEES PRICE PER EXPIRATION					
NAME	OPTIONS GRANTED IN 1997(1) SHARE (2) DATE					
Peter Mearsheimer(3)						

 18,624 15% \$ 4.83 9/15/2007 |

- (1) The number of options granted to employees during 1997 used to compute this percentage excludes options to purchase 35,075 shares of Common Stock due to the termination of such options pursuant to their terms.
- (2) Options were granted at an exercise price equal to the fair market value of the Company's Common Stock on the date of grant, as determined by the Board of Directors.
- (3) Mr. Mearsheimer was no longer employed by the Company effective August 1998,

## EMPLOYMENT AGREEMENTS

On May 18, 1998, the Company entered into an employment agreement with Avi A. Fogel, pursuant to which Mr. Fogel serves as the Company's Chief Executive Officer and President for a four year term at an annual base salary of \$150,000 per year subject to annual increases in base salary of up to 20% at the discretion of the Compensation Committee of the Board of Directors. Mr. Fogel is eligible to receive an additional cash bonus of up to \$50.000 as determined by the Compensation Committee of the Board of Directors in its discretion. In addition, upon execution of his employment agreement, Mr. Fogel received five year options to purchase 294,879 shares of the Company's common stock at an exercise price of \$2.42 per share. The options granted to Mr. Fogel vested as to 34% of the shares covered thereby at the time of execution of his employment agreement and vest as 22% of the shares covered thereby on each of the first three anniversaries thereafter, subject to acceleration upon a change of control of the Company. In the event Mr. Fogel's employment agreement is terminated "other than for cause" (as defined in the agreement), he shall be entitled to (i) the vesting of all options in the year of termination and 50% of the options that would have vested in the year following termination and (ii) the lesser of one year's base salary or the base salary for the balance of the term of the agreement. Mr. Fogel has agreed not to disclose any confidential information of the Company during the term of his employment or at any time thereafter or to compete with the Company during the term of his agreement and for a period of two years thereafter in the event of termination for cause.

On June 30, 1998, the Company entered into an employment agreement with Mr. William Hancock pursuant to which Mr. Hancock agreed to continue to serve as the Company's Chief Technology Officer for a three year term at an annual salary of \$160,000 per annum, subject to additional bonus compensation as determined by the Compensation Committee of the Board of Directors in its discretion. In the event Mr. Hancock's employment is terminated for cause (as defined in the agreement), the Company will have the right to repurchase 50% of the securities owned by him at the time at a purchase price of \$1.00 per share. In the event Mr. Hancock's employment agreement is terminated "other than for cause" (as defined in the agreement), he shall be entitled to receive the lesser of six months base salary or the base salary for the balance of the term of the term of the agreement. Mr. Hancock has agreed not to disclose any confidential information of the Company during the term of his employment or at anytime thereafter or to compete with the Company during the term of his agreement and for a period of two years thereafter in the event of termination for cause.

On May 18, 1998, the Company entered into an employment agreement with Robert P. Olsen pursuant to which Mr. Olsen agreed to serve as the Company's Vice President of Product Management for a three year term at an annual salary of \$120,000 per annum, subject to an additional cash bonus of \$30,000 as determined by the Compensation Committee of the Board of Directors in its discretion. Upon execution of his employment agreement, Mr. Olsen received an incentive stock option to purchase 58,976 shares of the Company's common stock at an exercise price of \$5.60 per share. The options granted to Mr. Olsen vested as to 34% of the shares covered thereby upon execution of the agreement and 22% of the shares covered thereby on each of the first three anniversaries thereafter, subject to acceleration upon a change of control of the Company. In the event Mr. Olsen's employment agreement is terminated "other than for cause" (as defined in the agreement), he shall be entitled to (i) the vesting of all options in the year of termination and 50% of the options that would have vested in the year following termination and (ii) the lesser of one year base salary or the base salary for the balance of the term of the agreement. Mr. Olsen has agreed not to disclose any confidential information of the Company during the term of his employment or at anytime thereafter or to compete with the Company during the term of his agreement and for a period of two years thereafter in the event of termination for cause.

On May 19, 1998, the Company entered into an employment agreement with Murray P. Fish pursuant to which Mr. Fish agreed to serve as the Company's Chief Financial Officer for a three year term at an annual salary of \$120,000 per annum, subject to an additional cash bonus of \$30,000 as determined by Compensation Committee of the Board of Directors in its discretion. Upon execution of his employment

agreement, Mr. Fish received an incentive stock option to purchase 58,500 shares of the Company's common stock at an exercise price of \$5.60 per share. The options granted to Mr. Fish vested as to 34% of the shares covered thereby upon execution of the agreement and vest as to 22% on each of the first three anniversaries thereafter, subject to acceleration upon a change of control of the Company. In the event Mr. Fish's employment agreement is terminated "other than for cause" (as defined in the agreement), he shall be entitled to (i) the vesting of all options in the year of termination and 50% of the options that would have vested in the year following termination and (ii) the lesser of six months base salary or the base salary for the balance of the term of the agreement. Mr. Fish has agreed not to disclose any confidential information of the Company during the term of his employment or at anytime thereafter or to compete with the Company during the term of his agreement and for a period of two years thereafter in the event of termination for cause.

On July 31, 1998, the Company entered into an employment agreement with Joseph A. Donohue pursuant to which Mr. Donohue agreed to serve as the Company's Vice President of Engineering for a three year term at an annual salary of \$120,000 per annum, subject to an additional cash bonus of \$30,000 as determined by the Compensation Committee of the Board of Directors in its discretion. In connection with his employment, Mr. Donohue received an incentive stock option to purchase 62,500 shares of the Company's common stock at an exercise price of \$6.00 per share. The options granted to Mr. Donohue vested as to 34% of the shares covered thereby upon execution of the agreement and 22% of the shares covered thereby on each of the first three anniversaries thereafter, subject to acceleration upon a change of control of the Company. In the event Mr. Donohue's employment agreement is terminated "other than for cause" (as defined in the agreement), he shall be entitled to (i) the vesting of all options in the year of termination and 50% of the options that would have vested in the year following termination and (ii) the lesser of six months base salary or the base salary for the balance of the term of the agreement. Mr. Donohue has agreed not to disclose any confidential information of the Company during the term of his employment or at anytime thereafter or to compete with the Company during the term of his agreement and for a period of two years thereafter in the event of termination for cause.

On August 24, 1998, the Company entered into an employment agreement with Joseph D. Harris pursuant to which Mr. Harris agreed to serve as the Company's Vice President of International Sales for a three year term at an annual salary of \$120,000 per annum, subject to an additional cash bonus of \$30,000 as determined by Compensation Committee of the Board of Directors in its discretion. In connection with his employment, Mr. Harris received an incentive stock option to purchase 40,000 shares of the Company's common stock at an exercise price of \$6.00 per share. The options granted to Mr. Harris vested as to 25% of the shares covered thereby upon execution of the agreement and vest as to 25% on each of the first three anniversaries thereafter, subject to acceleration upon a change of control of the Company. In the event Mr. Harris' employment agreement is terminated "other than for cause" (as defined in the agreement), he shall be entitled to (i) the vesting of all options in the year of termination and 50% of the options that would have vested in the year following termination and (ii) the lesser of six months base salary or the base salary for the balance of the term of the agreement. Mr. Harris has agreed not to disclose any confidential information of the Company during the term of his employment or at anytime thereafter or to compete with the Company during the term of his agreement and for a period of two years thereafter in the event of termination for cause.

On April 4, 1994, the Company entered into an employment agreement with Robert M. Russo pursuant to which Mr. Russo agreed to then serve as the Company's President and Chief Operating Officer for a three year term at a base salary of \$145,000 per annum, subject to an additional cash bonus as determined by the Board of Directors in its discretion. In February 1996, the Company and Mr. Russo agreed to extend the term of his employment agreement, upon the same terms and conditions, expiring April 1999. In accordance with his agreement, Mr. Russo has agreed not to disclose any confidential information of the Company during the term of his employment or at anytime thereafter or to compete with the Company during the term of his agreement and for a period of two years thereafter in the event of

termination for cause. In May 1998, Mr. Russo agreed to serve the Company for the balance of the term of his employment agreement as its Vice President of Business Development at a base salary of \$120,000 per annum, subject to an additional cash bonus of \$30,000 as determined by the Compensation Committee of the Board of Directors.

The Company's aggregate salary commitment pursuant to employment agreements with the foregoing officers is \$804,000, \$820,000, \$790,000, \$470,000 and \$56,000 for the years ending December 31, 1998, 1999, 2000, 2001 and 2002, respectively.

### STOCK OPTION PLAN

On March 7, 1996, the Board of Directors and stockholders of the Company approved the adoption of the Stock Option Plan. The Stock Option Plan, as amended, is intended to assist the Company in securing and retaining key employees, directors and consultants by allowing them to participate in the ownership and growth of the Company through the grant of incentive and non-qualified options (collectively, the "Options"). Under the Stock Option Plan, key employees (including officers and employee directors) are eligible to receive grants of incentive stock options. Employees (including officers), directors of the Company or any affiliates and consultants are eligible to receive grants of non-qualified options. Incentive stock options granted under the Stock Option Plan are intended to be "Incentive Stock Options" as defined by Section 422 of the Internal Revenue Code of 1986, as amended.

The Stock Option Plan has been administered by the Board of Directors and following the consummation of this offering will be administered by the Compensation Committee of the Board of Directors of the Company. The Compensation Committee of the Board of Directors will consist of members who have been determined by the Board of Directors to be "disinterested persons" within the meaning of Rule 16b-3(c)(2)(i) promulgated under the Exchange Act or any future corresponding rule.

The Compensation Committee will determine who shall receive Options, the number of shares of Common Stock that may be purchased under the Options, the time and manner of exercise of Options and exercise prices. The term of Options granted under the Stock Option Plan may not exceed 10 years (five years in the case of an incentive stock option granted to an optionee owning more than 10% of the voting stock of the Company) (a "10% Holder"). The exercise price for incentive stock options shall not be less than 100% of the "fair market value" of the shares of Common Stock at the time the Option is granted; provided, however, that with respect to an incentive stock option, in the case of a 10% Holder, the purchase price per share shall be at least 110% of such fair market value. The exercise price for non-qualified options is set by the Compensation Committee in its discretion. The aggregate fair market value of the shares of Common Stock as to which an optionee may exercise incentive stock options may not exceed \$100,000 in any calendar year. Payment for shares purchased upon exercise of Options is to be made in cash, check or other instrument, and at the discretion of the Committee, may be made by delivery of other shares of Common Stock of the Company. If any Option granted under the Plan expires or terminates for any reason without having been exercised in full, then the unpurchased shares subject to the Option will once again be available for additional Option grants.

Under certain circumstances involving a change in the number of outstanding shares of Common Stock including a stock split, consolidation, merger or payment of stock dividend, the class and aggregate number of shares of Common Stock in respect of which Options may be granted under the Stock Option Plan, the class and number of shares subject to each outstanding Option and the exercise price per share will be proportionately adjusted.

An aggregate of 1,050,000 shares of Common Stock has been reserved for issuance upon exercise of the Options to be granted under the Stock Option Plan. As of the date of this Prospectus, the Company has granted Options to purchase 855,216 shares of Common Stock under the Plan, of which Options to purchase 94,362, 94,185, 93,750, 88,464, 65,000, 25,000 and 25,000 shares of Common Stock have been granted to Messrs. Olsen, Fish, Donohue, Fogel, Harris, Hancock and Russo, respectively. The Options

granted to Messrs. Olsen and Fish are exercisable at a prices of \$5.60 and \$6.00 per share. The Options granted to Messers. Donohue, Fogel, Harris, Russo and Hancock are exercisable at a price of \$6.00 per share. In addition, each of the non-employee directors, Messrs. Horowitz, Rubenstein, Lieber and Ranum, have been granted Options to purchase 20,000 shares of Common Stock at \$6.00 per share.

### 401(K) PLAN

The Company maintains the "Network-1 Security Solutions 401(k) Plan", a defined contribution pension plan with a cash or deferred arrangement as described in Section 401(k) of the Internal Revenue Code of 1986, as amended (the "401(k) Plan"). The 401(k) Plan is intended to qualify under Section 401(a) of the Code, so that contributions, and income earned thereon, are not taxable to employees until withdrawn. All regular full-time Company employees over the age of 21 are eligible to participate in the 401(k) Plan. The 401(k) Plan provides that each participant may make elective pre-tax salary deferrals up to 15% of his or her annual compensation, subject to statutory limits. The Company also may make discretionary annual matching contributions in amounts determined by the Compensation Committee of the Board of Directors, subject to statutory limits. The Company's policy is to base its contributions on Company profitability. The Trustee of the 401(k) Plan invests each employee's account at the direction of the employee, who may choose among several investment alternatives, which do not include shares of the Company's Common Stock. The Company did not make any contributions to the 401(k) Plan during 1997.

### LIMITATION ON LIABILITY AND INDEMNIFICATION MATTERS

The Company's Certificate of Incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability (i) for any breach of their duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law or (iv) for any transaction from which the director derived an improper personal benefit.

The Company's Bylaws provide that the Company shall indemnify its directors, officers, employees and agents to the fullest extent permitted by law. The Company's Bylaws also permit the Company to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in such capacity. The Company currently maintains liability insurance for its officers and directors.

At present, there is no pending material litigation or proceeding involving any director, officer, employee or agent of the Company where indemnification will be required or permitted. The Company is not aware of any threatened litigation or proceeding that might result in a material claim for such indemnification.

### 53 PRINCIPAL STOCKHOLDERS

The following table sets forth certain information, as of the date of this Prospectus (after giving effect to the Pro Forma Adjustments and the CommHome Acquisition) and as adjusted to reflect the sale by the Company of 1,700,000 shares of Common Stock offered hereby, relating to the beneficial ownership of shares of Common Stock by: (i) each person or entity who is known by the Company to own beneficially five percent or more of the outstanding shares of Common Stock; (ii) each director or person who has agreed to become a director of the Company; (iii) the executive officers; and (iv) all directors and executive officers of the Company as a group.

NUMBER OF PERCENT OF SHARES SHARES BENEFICIALLY OWNED (1)

BENEFICIALLY -----

### NAME AND ADDRESS OF BENEFICIAL OWNER OWNED BEFORE OFFERING AFTER OFFERING <S><C> <C> <C> 29.6% 19.4% 953,503 18.9 Corey M. Horowitz (3)..... 28.4 CMH Capital Management Corp. Pisces Investors, L.P. Security Partners, L.P. 9.5 6.2 7.5 4.9 Charles P. Stevenson, Jr. (6)..... 187,316 5.8 3.8 49 32 3.0 4.6 Joseph A. Donohue (12)..... 31,875 Marcus Ranum (14)..... 5,000 All directors and executive officers as group (11 persons)............ 2,020,879 54.2% 37.2%

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- (1) Unless otherwise indicated, the Company believes that all persons named in the 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 of this Prospectus upon the exercise of options, warrants or convertible securities. Each beneficial owner's percentage ownership is determined by assuming that options, warrants or convertible securities that are held by such person (but not those held by any other person) and which are exercisable within 60 days of the date of this Prospectus have been exercised and converted. Assumes a base of 3,225,467 shares of Common Stock outstanding prior to this offering (including 562,836 shares of Common Stock issuable upon conversion of shares of Series C Preferred Stock to be issued upon consummation of this offering) and a base of 4,925,467 shares of Common Stock outstanding immediately after this offering (including 562,836 shares of Common Stock issuable upon conversion of shares of Series C Preferred Stock to be issued upon consummation of this offering), before any consideration is given to outstanding options, warrants or convertible securities.
- (2) Includes 382,696 shares of Common Stock issuable upon conversion of Series C Preferred Stock held by Applewood Associates, L.P. ("Applewood"). Does not include (i) 31,040, 23,280, 31,040, 4,656 and 3,104 shares of Common Stock held by Barry Rubenstein, Irwin Lieber, Barry Fingerhut, Seth Lieber and Jonathan Lieber, respectively, each of whom is a general partner of Applewood and (ii) an aggregate of 109,328 shares of Common Stock subject to currently exercisable warrants and options

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held by Barry Rubenstein (54,664 shares) and Irwin Lieber (54,664 shares). Each of Messrs. Rubenstein, I. Lieber, Fingerhut, S. Lieber and J. Lieber disclaims beneficial ownership of the shares held by Applewood, except to the extent of their equity interest therein. Applewood's business address is 80 Cuttermill Road, Great Neck, New York 11021.

<sup>\*</sup> Less than 1%.

shares of Common Stock issuable upon conversion of Series C Preferred Stock held by Mr. Horowitz, (iii) 5,000 shares of Common Stock subject to currently exercisable stock options issued to Mr. Horowitz, (iv) 206,933 shares of Common Stock issuable upon conversion of Series B Convertible Preferred Stock held by Pisces Investors, L.P., a limited partnership whose general partner is CMH Capital Management Corp. ("CMH"), a corporation whose sole stockholder and officer is Mr. Horowitz, (v) 145,887 shares of Common Stock (including 62,080 shares of Common Stock issuable upon conversion of Series B Convertible Preferred Stock) owned by Security Partners, L.P. (CMH is the general partner of Security Partners, L.P. and Mr. Horowitz is a limited partner), (vi) 55,320 shares of Common Stock held by CMH, (vii) 32,675 shares of Common Stock issuable upon conversion of Series C Preferred Stock held by CMH and (viii) 124,936 shares of Common Stock subject to currently exercisable warrants held by CMH. Does not include 15,000 shares of Common Stock subject to stock options which are not currently exercisable. Mr. Horowitz disclaims beneficial ownership of the shares held by Pisces Investors, L.P. and Security Partners, L.P. except to the extent of his equity interest therein. The address of CMH Capital Management Corp. is 885 Third Avenue, New York, New York 10022 and the address of Pisces Investors, L.P. and Security Partners, L.P. is c/o CMH Capital Management Corp., 885 Third Avenue, New York, New York 10022.

- (4) Includes 8,500 shares of Common Stock subject to currently exercisable stock options issued to Mr. Russo pursuant to the Stock Option Plan. Does not include 16,500 shares of Common Stock subject to stock options which are not current exercisable.
- (5) Includes 8,500 shares of Common Stock subject to currently exercisable stock options issued to Mr. Hancock pursuant to the Stock Option Plan. Does not include 16,500 shares of Common Stock subject to stock options which are not current exercisable.
- (6) Includes (i) 16,586, 50,432 and 7,064 shares of Common Stock held by Mr. Stevenson, Navigator Fund, L.P. and Navigator Global Fund, respectively, issuable upon conversion of Series C Preferred Stock and (ii) 47,990, 6,039 and 49,381 shares of Common Stock held by Navigator Fund, L.P., Navigator Global Fund and CAPCOR Employee Pension Plan, respectively. Mr. Stevenson is the President and sole stockholder of the general partner of Navigator Fund, L.P. and Navigator Global Fund. Mr. Stevenson is also the trustee and beneficiary of CAPCOR Employee Pension Plan. The address of Mr. Stevenson, Navigator Fund, L.P., Navigator Global Fund and CAPCOR Employee Pension Plan is 45 Rockefeller Plaza, Suite 1776, New York, New York 10111.
- (7) Includes (i) 130,337 shares of Common Stock subject to currently exercisable stock options, (ii) 23,876 shares of Common Stock to be issued to Mr. Fogel in connection with the CommHome Acquisition and (iii) 9,167 shares of Common Stock to be issued to Mr. Fogel in satisfaction of indebtedness owed to Mr. Fogel by CommHome. Does not include 253,006 shares subject to stock options which are not currently exercisable.
- (8) Includes (i) 54,664 shares of Common Stock subject to currently exercisable warrants and options owned by Mr. Rubenstein, and (ii) 41,128 and 23,280 shares of Common Stock held by Woodland Venture Fund and Seneca Ventures, respectively. Barry Rubenstein and Woodland Services Corp. are the general partners of Woodland Venture Fund and Seneca Ventures. Barry Rubenstein is also President and sole director of Woodland Services Corp. Does not include (i) 571,963 shares of Common Stock held by Applewood, of which Mr. Rubenstein is a general partner, (ii) 382,696 shares of Common Stock issuable upon conversion of Series C Preferred Stock held by Applewood and (iii) 15,000 shares of Common Stock subject to stock options which are not currently exercisable. Mr. Rubenstein disclaims beneficial ownership of the shares of Common Stock held by Applewood,

except the extent of his equity interest therein. The address of Woodland Venture Fund and Seneca Ventures is c/o Barry Rubenstein, 68 Wheatley Road, Brookville, New York 11545.

- (9) Includes 54,664 shares of Common Stock subject to currently exercisable warrants and options owned by Mr. Lieber. Does not include (i) 571,963 shares of Common Stock held by Applewood, of which Mr. Lieber is a general partner, (ii) 382,696 shares of Common Stock issuable upon conversion of Series C Preferred Stock held by Applewood and (iii) 15,000 shares of Common Stock subject to stock options which are not currently exercisable. Mr. Lieber disclaims beneficial ownership of the shares of Common Stock held by Applewood, except to the extent of his equity interest therein.
- (10) Includes (i) 32,083 shares of Common Stock subject to currently exercisable stock options issued to Mr. Olsen pursuant to the Stock Option Plan and (ii) 8,333 shares of Common Stock to be issued to Mr. Olsen in satisfaction of indebtedness owed to Mr. Olsen by CommHome. Does not include 62,279 shares of Common Stock subject to stock options which are not currently exercisable.
- (11) Includes 32,023 shares of Common Stock subject to stock options issued to Mr. Fish pursuant to the Stock Option Plan. Does not include 62,162 shares of Common Stock subject to stock options which are not currently exercisable.
- (12) Includes 31,875 shares of Common Stock subject to stock options issued to Mr. Donohue pursuant to the Stock Option Plan. Does not include 61,875 shares of Common Stock subject to stock options which are not currently exercisable.
- (13) Includes 16,250 shares of Common Stock subject to stock options issued to Mr. Harris pursuant to the Stock Option Plan. Does not include 48,750 shares of Common Stock subject to stock options which are not currently exercisable.
- (14) Includes 5,000 shares of Common Stock subject to stock options issued to Mr. Ranum pursuant to the Stock Option Plan. Does not include 15,000 shares of Common Stock subject to stock options which are not currently exercisable.

### 56 CERTAIN TRANSACTIONS

In February and April 1997, the Company issued an aggregate principal amount of \$1,000,000 of notes bearing interest at the rate of 6% per annum, and warrants to purchase an aggregate of 139,679 shares of the Company's Common Stock at an exercise price of \$6.44 per share in private financings (the "February and April 1997 Private Financings"). In connection with the February and April 1997 Private Financings, the Company issued (i) promissory notes in the aggregate principal amount of \$450,000 and warrants to purchase an aggregate of 62,856 shares of Common Stock to Charles P. Stevenson, Jr., Navigator Fund L.P. and Navigator Global Fund, (ii) a promissory note in the principal amount of \$250,000 and warrants to purchase 34,920 shares of Common Stock to Applewood Associates, L.P. ("Applewood"), a principal stockholder of the Company, and (iii) a promissory note in the principal amount of \$50,000 and warrants to purchase 6,984 shares of Common Stock to Herb Karlitz. Charles P. Stevenson, Jr.

is a principal stockholder of the Company and the President and sole stockholder of the general partner of Navigator Fund, L.P. and Navigator Global Fund. Barry Rubenstein, a director and a principal stockholder of the Company, and Irwin Lieber, a director of the Company, are general partners of Applewood. Herb Karlitz is the brother-in-law of Corey M. Horowitz, Chairman of the Board of Directors and a principal stockholder of the Company. In connection with the February and April 1997 Private Financings, Robert Russo, Vice President of Business Development and Secretary of the Company, delivered to the Company for cancellation 39,110 shares of Common Stock in consideration of \$630, and William H. Hancock, Chief Technology Officer and a director of the Company, delivered to the Company for cancellation 54,009 shares of Common Stock in consideration of \$870.

On August 30, 1996 the Company entered into an agreement (the "CMH Advisory Agreement"), as amended, with CMH Capital Management Corp. ("CMH"), a corporation wholly-owned by Corey M. Horowitz, pursuant to which CMH agreed to render advisory services to the Company in consideration of fees of \$12,500 per month for a period of two years and the issuance of warrants to purchase 31,040 shares of the Company's Common Stock at an exercise price of \$8.05 per share and 31,040 shares of the Company's Common Stock at an exercise price of \$6.44 per share (collectively, the "CMH Advisory Warrants"). In addition, the Company agreed that in the event it completes a merger or sale of substantially all of its assets prior to January 15, 2001, CMH would be entitled to a cash fee equal to 2% of the value of the total consideration received in connection with such transaction. CMH agreed that the monthly fee of \$12,500 would accrue until the Company completed a financing of a minimum of \$5,000,000. On May 14, 1998, CMH agreed with the Company to convert accrued fees of \$200,000 into 31,250 shares of Common Stock of the Company in full satisfaction of the Company's monthly fee obligation to CMH under the CMH Advisory Agreement.

On August 8, 1997, CMH loaned the Company \$100,000 at an interest rate of 8% per annum. As further consideration for such loan, the Company agreed to reduce the exercise price of all of the CMH Advisory Warrants to \$3.22 per share. In addition, the Company agreed to reduce the exercise price of warrants to purchase 124,159 shares of Common Stock at an exercise price of \$3.22 per share previously issued to Corey M. Horowitz on November 29, 1995 to \$1.61 per share.

On September 26, 1997, the Company issued to Applewood and CMH, principal stockholders of the Company, notes in the principal amounts of \$350,000 and \$50,000, respectively, bearing interest at the rate of 8% per annum, and warrants to purchase 62,080 and 8,869 shares of Common Stock, respectively (the "September 1997 Private Financing"). In connection with the September 1997 Private Financing, Robert Russo, Vice President of Business Development and Secretary of the Company, William Hancock, Chief Technology Officer and a director of the Company, and Kenneth Conquest, then Vice President of Engineering of the Company, delivered to the Company for cancellation 112,373, 86,112 and 10,103 shares of Common Stock, respectively, for an aggregate consideration of \$3,360.

On November 21, 1997, CMH loaned the Company \$50,000 at an interest rate of 8% per annum pending the Company's receipt of a certain accounts receivable. As additional consideration for the loan,

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the Company agreed to further reduce the exercise price of the CMH Advisory Warrants to \$1.61 per share from \$3.22 per share. The aforementioned loan was repaid in full by the Company on December 12, 1997.

From March 2, 1998 through May 14, 1998, the Company issued an aggregate principal amount of \$1,750,000 of notes, bearing interest at the rate of 8% per annum, and warrants to purchase up to 325,919 shares of Common Stock at an exercise price of \$4.83 per share (the "1998 Private Financing"). In connection with the 1998 Private Financing, Applewood purchased a \$1,300,000 principal amount note and warrants to purchase 242,111 shares of Common Stock, CMH purchased a \$50,000 note and warrants to purchase 9,312 shares of Common Stock, Mr. Horowitz purchased a \$50,000 principal amount note and warrants to purchase 9,312 shares of Common Stock and each of Herb Karlitz and Robert Graifman,

brothers-in-law of Mr. Horowitz, purchased a \$25,000 principal amount note and warrants to purchase 4,656 shares of Common Stock, at purchase prices of \$1,300,000, \$50,000, \$50,000, \$25,000 and \$25,000, respectively. In connection with the 1998 Private Financing, Messrs. Russo and Hancock delivered to the Company for cancellation 38,800 and 23,280 shares of Common Stock, respectively, for an aggregate consideration of \$1,000.

As part of the 1998 Private Financing, in consideration of Applewood's investment of \$1,000,000 in May 1998, the Company, CMH and Applewood entered into an advisory agreement, which amended the CMH Advisory Agreement, pursuant to which the Company agreed to increase the cash fee payable to CMH, if the Company completes a merger or sale of all or substantially all its assets at any time up to January 15, 2001, from 2% to 3% of the value of the total consideration received by the Company, and CMH agreed to share such consideration with Applewood. As further consideration for Applewood's \$1,000,000 investment in May 1998, each of CMH, Mr. Horowitz, Pisces Investors, L.P., Security Partners, L.P., Messrs. Russo, Hancock and Conquest agreed that for a period of 24 months from the consummation of this offering, they would not sell in the public market any securities of the Company owned by them without the consent of Applewood, unless 60% of the securities owned by Applewood and affiliated parties have been sold.

On July 8, 1998, the Company entered into an exchange agreement with certain holders of outstanding warrants and options to which the Company issued an aggregate of 596,741 shares of its Common Stock in exchange for cancellation of outstanding warrants and options to purchase 789,521 shares of the Company's Common Stock. Pursuant to such agreement, Applewood exchanged warrants to purchase 339,111 shares of Common Stock, at exercise prices of \$4.83 and \$6.44 per share, for 261,565 shares of Common Stock, Mr. Horowitz and CMH, exchanged warrants to purchase an aggregate of 151,652 shares of Common Stock, at exercise prices ranging from \$1.61 to \$4.83, for 131,207 shares of Common Stock and Herb Karlitz exchanged warrants to purchase 11,640 shares of Common Stock, at exercise prices of \$4.83 and \$6.44 per share, for 8,572 shares of Common Stock.

On September 11, 1998, the Company entered into a merger agreement with CommHome Systems Corporation ("CommHome"), effective upon consummation of this offering, pursuant to which the CommHome stockholders have agreed to exchange all of the outstanding common stock of CommHome for 46,667 shares of Common Stock of the Company valued at \$280,000. The Company will assume liabilities of CommHome on the effective date of the merger of approximately \$200,000, which include \$55,000 and \$50,000 owed to Avi A. Fogel and Robert P. Olsen, respectively. Messrs. Fogel and Olsen have agreed to accept 9,167 and 8,333 shares, respectively, of the Company's Common Stock in full satisfaction of such indebtedness. Avi A. Fogel, President, Chief Executive Officer and a director of the Company, is also President, Chief Executive Officer and a director of CommHome and owns 51% of the outstanding shares of CommHome. Mr. Olsen, Vice President of Product Management of the Company, is the former Vice President of Marketing of CommHome.

On October 1, 1998, the Company entered into an agreement with CMH to provide financial advisory services for the three-month period ending December 31, 1998 for which CMH received 10,000 shares of Common Stock.

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On October 19, 1998, Applewood loaned the Company \$75,000 at an interest rate of 10% per annum which will be paid upon consummation of this offering.

On October 20, 1998, the Company entered into an agreement, effective upon consummation of this offering, with certain of its holders of outstanding promissory notes, including accrued interest, of \$3,204,888, pursuant to which the Company will issue 562,836 shares of Series C Preferred Stock in exchange for the cancellation of promissory notes, including accrued interest, of \$2,954,888, subject to adjustment in the event the Underwriter's over-allotment option is exercised as described below. In accordance with the agreement, Applewood will receive 382,696 shares of Series C Preferred Stock in exchange

for the cancellation of promissory notes, including accrued interest, of \$2,009,156, Mr. Horowitz and CMH will receive an aggregate of 40,521 shares of Series C Preferred Stock in exchange for the cancellation of promissory notes, including accrued interest, of \$212,734, Charles P. Stevenson, Jr., Navigator Fund, L.P. and Navigator Global Fund will receive an aggregate of 74,081 shares of Series C Preferred Stock in exchange for the cancellation of promissory notes, including accrued interest, of \$388,926, Herb Karlitz will receive 12,260 shares of Series C Preferred Stock in exchange for the cancellation of promissory notes, including accrued interest, of \$64,364 and Robert Graifman will receive 3,967 shares of Series C Preferred Stock in exchange for the cancellation of promissory notes, including accrued interest, of \$20,828. The balance of the promissory notes in the principal amount of \$250,000 will be repaid from the proceeds of this offering, including indebtedness owed to Mr. Horowitz and CMH in the aggregate amount of \$56,235, Charles P. Stevenson, Jr. in the amount of \$23,018, Navigator Fund L.P. in the amount of \$69,990, Navigator Global Fund in the amount of \$9,803, Herb Karlitz in the amount of \$17,014 and Robert Graifman in the amount of \$5,503. In addition, in the event the Underwriter exercises the over-allotment option in whole or in part, the Company will use 50% of the net proceeds to repay a portion of the promissory notes, pro-rata, among the holders of such promissory notes, including Applewood, Messrs. Stevenson and Horowitz and their affiliated entities, Herb Karlitz and Robert Graifman, and the number of shares of Series C Preferred Stock will be proportionately reduced.

Upon consummation of this offering, 333,334 shares of Series B Preferred Stock owned by Pisces Investors, L.P. ("Pisces") and 100,000 shares of Series B Preferred Stock owned by Security Partners, L.P. ("Security Partners") will automatically convert into 206,933 shares and 62,080 shares of Common Stock, respectively. CMH is the general partner of Pisces and Security Partners. Mr. Horowitz and Herb Karlitz are limited partners of Security Partners. In addition, Robert Graifman is a limited partner of Pisces and Security Partners.

The Company believes that the aforementioned transactions with its officers, directors and principal stockholders and their affiliates were on terms no less favorable than could have been obtained from unaffiliated third parties. However, the Company lacked sufficient disinterested independent directors at the time of certain of such transactions. All future transactions, including loans, between the Company and its officers, directors and stockholders beneficially owning 5% or more of the Company's outstanding voting securities, or affiliates of such persons, will be for bona fide business purposes and will be on terms no less favorable to the Company than could be obtained in arm's length transactions from unaffiliated third parties. Further, all such transactions and loans and any forgiveness of indebtedness owed by such persons to the Company must be approved by a majority of the Company's independent directors who do not have an interest in the transactions and who have access, at the Company's expense, to the Company's or independent legal counsel.

### 59 DESCRIPTION OF SECURITIES

The authorized capital stock of the Company consists of 25,000,000 shares of Common Stock, par value \$.01 per share, and 5,000,000 shares of Preferred Stock, par value \$.01 per share. As of the date of this Prospectus (after giving effect to the Pro Forma Adjustments and the Offering Adjustments), the Company has outstanding 2,662,631 shares of Common Stock, held of record by 87 stockholders and 562,836 shares of Series C Preferred Stock held of record by 14 stockholders. Upon consummation of this offering, there will be 4,362,631 shares of Common Stock and 562,836 shares of Series C Preferred Stock outstanding.

### COMMON STOCK

Holders of Common Stock are entitled to one vote per share on all matters submitted to a vote of stockholders. There are no cumulative voting rights for the election of directors, which means that the holders of more than 50% of such outstanding shares voting for the election of directors can elect all of the directors of the Company standing for election. Subject to the rights of any outstanding class or series of Preferred Stock created by the authority of the Board of Directors, holders of Common Stock are entitled to received dividends

as and when declared by the Board of Directors out of funds legally available therefor. Subject to the rights of any outstanding class or series of Preferred Stock created by the authority of the Board of Directors, in the event of the liquidation, dissolution or winding up of the Company, the holder of each share of Common Stock is entitled to share equally in the balance of any of the Company's assets available for distribution to stockholders. Outstanding shares of Common Stock do not have subscription or conversion rights and there are no redemption or sinking fund provisions applicable thereto. Holders of Common Stock have no preemptive rights to purchase pro-rata portions of new issues of Common Stock or Preferred Stock of the Company. The outstanding shares of Common Stock are, and the shares of Common Stock offered by the Company hereby will be, when issued and sold hereunder, fully paid and non-assessable.

### PREFERRED STOCK

Upon the consummation of this offering, all 500,000 shares of Series B Preferred Stock outstanding will be converted into 310,399 shares of Common Stock (See Note F(1) to Notes to Financial Statements for a description of the Series B Convertible Preferred Stock) and the Company will issue 562,836 shares of Series C Preferred Stock in exchange for the cancellation of promissory notes in the principal amount and accrued interest of \$2,954,888. See Note J[2] to Notes to Financial Statements.

The 562,836 shares of Series C Preferred Stock may be converted into an equal number of shares of Common Stock at any time at the option of the holders, subject to adjustment in the event of a merger or consolidation of the Company, reclassification of the Company's securities or a stock split, subdivision or combination of the Company's securities. The Series C Preferred Stock is entitled to vote on all matters on which stockholders are entitled to vote, together with the holders of Common Stock. Each share of Series C Preferred Stock is entitled to the number of votes equal to the number of shares of Common Stock into which such shares may be converted. Holders of the Series C Preferred Stock will be entitled to equivalent dividends and distributions as those paid on shares of Common Stock. The holders of the Series C Preferred Stock will be entitled to a liquidation preference of \$5.25 per share plus any declared but unpaid dividends before any payments are made to holders of Common Stock, in the event of liquidation, dissolution or winding up of the Company or, if elected by a majority of the outstanding shares of Series C Preferred Stock, upon the sale of all or substantially all of the assets of the Company or a merger of the Company into any other entity.

The Board is authorized, subject to any limitations prescribed by Delaware law, to provide for the issuance of additional shares of Preferred Stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series (but not below the number of shares of such series then outstanding), without any further vote or action by the stockholders. The Board may authorize the issuance of Preferred Stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Common Stock. Thus, the issuance of Preferred Stock may have the

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effect of delaying, deferring or preventing a change in control of the Company. The Company has no current plan to issue any shares of Preferred Stock.

## WARRANTS AND OPTIONS

As of the date of this Prospectus, the Company has outstanding warrants to purchase 336,007 shares of Common Stock (excluding the Underwriter's Warrants to purchase 170,000 shares of Common Stock) and options to purchase 294,879 shares of Common Stock (excluding options to purchase 855,216 shares of Common Stock issued pursuant to the Stock Option Plan). All outstanding warrants are currently exercisable and outstanding options are currently exercisable to purchase 100,259 shares of Common Stock (excluding currently exercisable options issued pursuant to the Stock Option Plan). The outstanding warrants are exercisable at prices ranging from \$1.61 to \$9.66 and expire between February

2002 and May 2008. The outstanding options are exercisable at \$2.42 per share and expire May 2003.

The warrants also entitle the holder to certain registration rights with respect to the shares of Common Stock issuable upon exercise of such warrants. No warrantholder has any stockholder rights with respect to the shares issuable upon exercise of warrants held by such holder until such warrants are exercised and the purchase price is paid for the shares. Each of the warrants and options also provides, among other things, for the adjustment of the price per share and number of shares issuable upon exercise of such warrants and options upon a merger or consolidation of the Company, reclassification of the Company's securities, a stock split, subdivision or combination of the Company's securities, the payment of a dividend in Common Stock of the Company or of certain other dividends or distributions with respect to the Common Stock of the Company.

### REGISTRATION RIGHTS OF CERTAIN HOLDERS

The holders of 1,040,614 shares of Common Stock (including warrants exercisable to purchase 62,856 shares of Common Stock) have been granted certain demand registration rights, including the right to request on up to two occasions that the Company file a registration statement with respect to such shares under the Securities Act and use its best efforts to effect any such registration. In addition, the holders of 1,462,757 shares of Common Stock (including warrants exercisable to purchase 336,007 shares) are entitled to piggyback registration rights with respect to such shares. If the Company proposes to register any of its securities, either for its own account or for the account of other stockholders, the Company is required to notify these holders and, subject to certain conditions and limitations, to include in such registration all of the shares of Common Stock requested to be included by such holders. All holders of registration rights have agreed to waive such rights in connection with this offering and not to exercise any such rights for one year from the date of this Prospectus, without the Underwriter's prior written consent.

In connection with this offering, the Company has agreed to grant the Underwriter certain demand and piggyback registration rights with respect to the shares of Common Stock issuable upon exercise of the Underwriter's Warrants. See "Underwriting."

### DELAWARE ANTI-TAKEOVER LAW

The Company is subject to the provisions of Section 203 of the Delaware General Corporation Law (the "Anti-Takeover Law") regulating corporate takeovers. The Anti-Takeover Law prevents certain Delaware corporations, including those whose securities are listed on the Nasdaq SmallCap Market from engaging, under certain circumstances, in a "business combination" (which includes a merger or sale of more than 10% of the corporation's assets) with any "interested stockholder" (a stockholder who owns 15% or more of the corporation's outstanding voting stock) for three years following the date that such stockholder became an "interested stockholder" unless the business combination is approved in a prescribed manner. A Delaware corporation may "opt out" of the Anti-Takeover Law with an express provision in its original or amended certificate of incorporation or an express provision in its Bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. The Company has not "opted out" of the provisions of the Anti-Takeover Law.

### TRANSFER AGENT

The Transfer Agent for the Company's Common Stock is American Stock Transfer and Trust Company, 40 Wall Street, New York, New York 10005.

### 61 SHARES ELIGIBLE FOR FUTURE SALE

Upon the consummation of this offering, the Company will have 4,925,467 shares of Common Stock outstanding (assuming the conversion of outstanding Series C Preferred Stock into 562,836 shares of Common Stock), of which the 1,700,000 shares being offered hereby will be freely tradeable without restriction or further registration under the Securities Act, except for any

shares purchased by an "affiliate of the Company" (in general, a person who has a controlling position with regard to the Company), which will be subject to the resale limitations of Rule 144 promulgated under the Securities Act.

All of the remaining 3,225,467 shares of Common Stock currently outstanding or issuable upon conversion of outstanding shares of Series C Preferred Stock are "restricted securities" or owned by "affiliates" (as those terms are defined in Rule 144) and thus may not be sold publicly unless they are registered under the Securities Act or are sold pursuant to Rule 144 or another exemption from registration. Of the 3,225,467 restricted shares, an aggregate of 2,566,714 shares will be eligible for sale, without registration, under Rule 144 (subject to certain volume limitations prescribed by such rule and to the contractual restrictions described below), following the date of this Prospectus and the balance of such shares will become eligible for sale at various times thereafter. The holders of 3,141,976 shares have agreed not to sell or otherwise dispose of any shares of Common Stock in the public markets and all holders of registration rights have agreed not to exercise any such rights to cause the Company to register any shares of Common Stock for sale pursuant to the Securities Act, in each case, for a period of 12 months following the date of this Prospectus, without the Underwriter's prior written consent.

In general, under Rule 144 as currently in effect, beginning 90 days after the date of this Prospectus, a person (or persons whose shares are aggregated) who has beneficially owned restricted securities for at least one year (including the holding period of any prior owner except an affiliate of the Company) would be entitled to sell within any three-month period a number of shares that does not exceed the greater of: (i) 1% of the number of shares of Common Stock then outstanding (which will equal approximately 49,255 shares immediately following the consummation of this offering); or (ii) the average weekly trading volume of the Common Stock during the four calendar weeks preceding the filing of a Form 144 with respect to such sale. Sales under Rule 144 are also subject to certain manner of sale provisions, notice requirements and the availability of current public information about the Company. Under Rule 144(k), a person who is not deemed to have been an affiliate of the Company at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years (including the holding period of any prior owner except an affiliate of the Company), is entitled to sell such shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144. Unless otherwise restricted, "144(k) shares" may therefore be sold immediately upon the consummation of this offering.

Rule 701 permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions, including the holding period requirement, of Rule 144. Any employee, officer or director of or consultant to the Company who purchased his or her shares pursuant to a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701. Rule 701 permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. Rule 701 further provides that non-affiliates may sell such shares in reliance on Rule 144 without having to comply with the holding period, public information, volume limitation or notice provisions of Rule 144. In both cases, a holder of Rule 701 shares is required to wait until 90 days after the date of this Prospectus before selling such shares.

Prior to this offering, there has been no market for the Common Stock and no prediction can be made as to the effect, if any, that market sales of shares of Common Stock or the availability of such shares for sale will have on the market prices of the Common Stock prevailing from time to time. Nevertheless, the possibility that substantial amounts of Common Stock may be sold in the public market may adversely affect prevailing market prices for the Common Stock and could impair the Company's ability to raise capital through the sale of its equity securities.

Whale Securities Co., L.P. (the "Underwriter") has agreed, subject to the terms and conditions contained in the Underwriting Agreement, to purchase the 1,700,000 shares of Common Stock offered hereby from the Company. The Underwriter is committed to purchase and pay for all of the shares of Common Stock offered hereby if any of such securities are purchased. The shares of Common Stock are being offered by the Underwriter, subject to prior sale, when, as and if delivered to and accepted by the Underwriter and subject to certain legal matters by counsel and to certain other conditions.

The Underwriter has advised the Company that it proposes to offer the shares of Common Stock to the public at the public offering price set forth on the cover page of this Prospectus. The Underwriter may allow certain dealers who are member of the National Association of Securities Dealers, Inc. (the "NASD") concessions, not in excess of \$ per share, of which not in excess of \$ per share may be reallowed to other dealers who are members of the NASD.

The Company has granted to Underwriter an option, exercisable for 45 days following the date of this Prospectus, to purchase up to 255,000 shares at the public offering price set forth on the cover page of this Prospectus, less underwriting discounts and commissions. The Underwriter may exercise this option in whole or, from time to time, in part, solely for the purpose of covering over-allotments, if any, made in connection with the sale of the shares offered hereby.

The Company has agreed to pay to the Underwriter a non-accountable expense allowance equal to 3% of the gross proceeds derived from the sale of the shares offered hereby, including any securities sold prior to the Underwriter's over-allotment option, \$50,000 of which has been paid as of the date of this Prospectus. The Company has also agreed to pay all expenses in connection with qualifying the shares offered under the laws of such states as the Underwriter may designate, including expenses of counsel retained for such purpose by the Underwriter.

The Company has agreed to sell to the Underwriter and its designees, for an aggregate of \$100, warrants (the "Underwriter's Warrants") to purchase up to 170,000 shares of Common stock at an exercise price of \$9.30 per share (155% of the public offering price per share). The Underwriter's Warrants may not be assigned or hypothecated for one year following the date of this Prospectus, except to the officers and partners of the Underwriter and members of the selling group, and are exercisable at any time, in whole or in part, during the four-year period commencing one year from the date of this Prospectus (the "Warrant Exercise Term"). During the Warrant Exercise Term, the holders of the Underwriter's Warrants are given, at nominal cost, the opportunity to profit from a rise in the market price of the Common Stock. To the extent that the Warrants are exercised, dilution to the interests of the Company's stockholders will occur. Further, the terms upon which the Company will be able to obtain additional equity capital may be adversely affected, since the holders of the Underwriter's Warrants can be expected to exercise them at a time when the Company would, in all likelihood, be able to obtain any needed capital on terms more favorable to the Company than in the Underwriter's Warrants. Any profit realized by the Underwriter on the sale of the Underwriter's Warrants, the underlying shares of Common Stock or the underlying warrants may be deemed additional underwriting compensation. The Underwriter's Warrants contain a cashless exercise provision. Subject to certain limitations and exclusions, the Company has agreed that, upon the request of the holders of the majority of the Underwriter's Warrants, the Company will (at its own expense), on one occasion during the Warrant Exercise term, register the Underwriter's Warrants and the securities underlying the Underwriter's Warrants under the Securities Act and that it will include the Underwriter's Warrants and all such underlying securities in any appropriate registration statement which is filed by the Company under the Securities Act during the seven years following the date of this Prospectus.

The Company has agreed, for a period of five years from the date of this Prospectus, if so requested by the Underwriter, to recommend and use its best efforts to elect a designee of the Underwriter as a director of the Company. The Company's officers, directors and principal stockholders have agreed to vote their

shares of Common Stock in favor of such designee. The Underwriter has not yet exercised and currently does not intend to exercise its right to designate such a person.

All of the Company's officers, directors and securityholders owning an aggregate of 3,141,976 shares of Common Stock have agreed not to sell or otherwise dispose any of their securities in the public markets for a period of twelve months from the date of this Prospectus without the Underwriter's prior written consent.

The Underwriter has informed the Company that it does not expect sales of the securities offered discretionary accounts to exceed 1% of the shares offered hereby.

The Company has agreed to indemnify the Underwriter against certain civil liabilities, including liabilities under the Securities Act.

Prior to this offering there has been no public market for the Common Stock. Accordingly, the initial public offering price of the Common Stock will be determined by negotiation between the Company and the Underwriter and may not necessarily be related to the Company's asset value, net worth or other established criteria of value. Factors to be considered in determining such price include the Company's financial condition and prospects, an assessment of the Company's management, market prices of similar securities of comparable publicly-traded companies, certain financial and operating information of companies engaged in activities similar to those of the Company and the general condition of the securities market.

In order to facilitate the offering, the Underwriter may engage in transactions that stabilize, maintain, or otherwise affect the price of the Common Stock. Specifically, the Underwriter may over-allot in connection with the offering, creating a short position in the Common Stock for its own account. In addition, to cover over-allotments or to stabilize the price of the Common Stock, the Underwriter may bid for, and purchase, shares of Common Stock in the open market. The Underwriter may also reclaim selling concessions allowed to a dealer for distributing the Common Stock in the offering, if the Underwriter repurchases previously distributed Common Stock in transactions to cover short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the Common Stock above independent market levels. The Underwriter is not required to engage in these activities, and may end any of these activities at any time.

### LEGAL MATTERS

The validity of the Common Stock offered hereby will be passed upon for the Company by Bizar Martin & Taub, LLP. Certain legal matters in connection with this offering will be passed upon for the Underwriter by Tenzer Greenblatt LLP. Bizar Martin & Taub, LLP owns currently exercisable warrants to purchase 9,312 shares of the Company's Common Stock at an exercise price of \$6.44 per share.

### **EXPERTS**

The financial statements of the Company as of December 31, 1997 and 1996 and for each of the years then ended appearing in this Prospectus and Registration Statement have been audited by Richard A. Eisner & Company, LLP, independent auditors, as set forth in their report thereon (which contains an explanatory paragraph with respect to the Company's ability to continue as a going concern) appearing elsewhere herein, and are included in reliance upon such report given upon the authority of said firm as experts in accounting and auditing.

## ADDITIONAL INFORMATION

The Company has filed with the Securities and Exchange Commission (the "Commission") a Registration Statement on Form SB-2 under the Securities Act with respect to the Common Stock offered hereby. This Prospectus, which constitutes a part of the Registration Statement, does not contain all of the

information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company and the Common Stock offered hereby, reference is hereby made to the Registration Statement and the exhibits and schedules filed as a part thereof. Statements contained in this Prospectus as to the contents of any contract or any other document referred to are not necessarily complete. In each instance, reference is made to the copy of such contract or document filed as an exhibit to the Registration Statement, and each such statement is qualified in all respects by such reference. The Registration Statement, including exhibits and schedules thereto, may be inspected and copied at the principal office of the Commission at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549 and at the Commission's regional offices located at Seven World Trade Center, Suite 1300, New York, New York 10048 and Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. Copies of such materials may also be obtained at prescribed rates from the Public Reference Section of the Commission, at 450 Fifth Street, N.W., Washington, D.C. 20549. In addition, registration statements and certain other filings made with the Commission through its Electronic Data Gathering, Analysis and Retrieval ("EDGAR") systems are publicly available through the Commission's site on the Internet's World Wide Web, located at http://www.sec.gov. The Registration Statement, including all exhibits thereto and amendments thereof, has been filed with the Commission through EDGAR.

Upon consummation of this offering, the Company will become subject to the reporting requirements of the Securities Exchange Act of 1934 and in accordance therewith will file reports, proxy statements and other information with the Commission. The Company intends to furnish its stockholders with annual reports containing audited financial statements and such other reports as the Company deems appropriate or as may be required by law.

# NETWORK-1 SECURITY SOLUTIONS, INC.

<TABLE> <CAPTION>

**PAGE** 

<C>

<S>INDEX TO FINANCIAL STATEMENTS Independent auditors' report..... Balance sheets as of December 31, 1996 and 1997 and June 30, 1998 (unaudited)..... Statements of operations for the years ended December 31, 1996 and 1997 and for the six months ended June 30, 1997 and 1998 (unaudited)..... Statements of stockholders' equity (deficiency) for the years ended December 31, 1996 and 1997 and for the six months ended June 30, 1998 (unaudited)..... Statements of cash flows for the years ended December 31, 1996 and 1997 and for the six months ended June 30, 1997 and 1998 (unaudited)...... F-6 Notes to financial statements.... </TABLE>

# INDEPENDENT AUDITORS' REPORT

Board of Directors and Stockholders Network-1 Security Solutions, Inc. Wellesley, Massachusetts

We have audited the accompanying balance sheets of Network-1 Security Solutions, Inc. (the "Company") as of December 31, 1996 and 1997 and the related statements of operations, stockholders' equity (deficiency) and cash flows for each of the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements enumerated above present fairly, in

all material respects, the financial position of Network-1 Security Solutions, Inc. as of December 31, 1996 and 1997 and the results of its operations and its cash flows for each of the years then ended in conformity with generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note A to the financial statements, the Company has incurred substantial losses from operations, and as of December 31, 1997 has a working capital deficiency of \$661,000 and a stockholders' deficiency of \$75,000. These factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note A. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Richard A. Eisner & Company, LLP

New York, New York June 17, 1998

With respect to Note F[3] July 8, 1998

With respect to the third paragraph of Note A July 17, 1998

With respect to Note J October 20, 1998

## F-2 NETWORK-1 SECURITY SOLUTIONS, INC. BALANCE SHEETS

<TABLE> <CAPTION> DECEMBER 31. ----- JUNE 30. 1997 1998 <S><C> <C> <C> (UNAUDITED) ASSETS Current assets: Cash and cash equivalents.....\$ 217,000 \$ 60,000 \$ 634,000 Accounts receivable--net of allowance for doubtful accounts of \$5,000, 609,000 Prepaid expenses and other current assets..... 30,000 30,000 35,000 525,000 1,278,000 400,000 323,000 1,258,000 1,042,000 131,000 136,000 Deferred offering costs..... 90,000 350,000 \$ 1,878,000 \$ 2,404,000 \$ 3,129,000 -----LIABILITIES Current liabilities: Accounts payable.....\$ 275,000 \$ 776,000 \$ 598,000 Accrued fee--related party..... 138 000 Accrued expenses and other current liabilities..... 155,000 201,000 302,000 Notes payable--related parties, net of discount..... 1,610,000 Notes payable--others, net of discount..... 972,000 Interest payable--related parties..... 72,000 Interest payable--other..... 61.000 24,000 8,000 Current portion of capital lease obligations..... Deferred revenue 25,000 63,000 92,000

3,707,000

Notes payablerelated part Notes payableothers, net of Interest payablerelated pa	ess current portiones, net of discountof discount	8,000 564,000 670,000 24,000 35,000
		479,000 3,707,000
A10% cumulative, 250,0 outstanding Series B500,000 shares a	CY (DEFICIENCY) ulue; authorized 5,000,000 shares; S 00 shares authorized, none issued a uthorized, issued and outstanding	Series and
Series C750,000 shares a Common stock\$.01 par va 1,706,037 and 1,678,104 s Additional paid-in capital	00,000)	2,004,951, 20,000 17,000 17,000 6,000 7,373,000 9,432,000
	nsatory stock options(5,080	(572,000)
		(75,000) (578,000)
	\$ 1,878,000 \$ 1	2,404,000 \$ 3,129,000

		See notes to	inancial statements	
F-3				
NETWORK-	1 SECURITY SOLUTIONS, INC.			
STATEM	ENTS OF OPERATIONS			
SOM HOLV	YEAR ENDED SIX MO DECEMBER 31, JUNE	ONTHS ENDED E 30,		
	1996 1997 1997 19			
<\$>	(UNAUDITED)			
Revenues:				
	\$ 624,000 \$1,132,000 \$ 506.  500,000 500,000  403,000 737,000 421,00			
	1,027,000 2,369,000 1,42			
Total Tevenues	1,027,000 2,309,000 1,42			
Cost of services	246,000 321,000 125,000 193,000 176,000 52,0 390,000 418,000 212,	000 128,000 ,000 272,000		
		89,000 667,000		
Gross profit	198,000 1,454,000 1,038,	000 235,000		
Selling and marketing General and administrative		235,000 283,000 524,000 351,000 919,000 1,153,000		
Total operating expenses	4,437,000 3,291,000	1,678,000 1,787,000		
Loss from operations	(4,239,000) (1,837,000)	(640,000) (1,552,000)		

```
Interest expense, including amortization of
Net loss...... $(4,499,000) $(2,390,000) $ (781,000) $(1,990,000)
              ______
Loss per share--basic and diluted....... $ (2.46) $ (1.29) $ (.40) $ (1.17)
             -----
Weighted average number of shares
outstanding--basic and diluted........... 1,825,163 1,855,244 1,934,334 1,699,120
              -----
              _____
</TABLE>
       See notes to financial statements
            F-4
       NETWORK-1 SECURITY SOLUTIONS, INC.
    STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIENCY)
<TABLE>
<CAPTION>
                 COMMON STOCK PREFERRED STOCK ADDITIONAL
               ----- PAID-IN ACCUMULATED
                SHARES AMOUNT SHARES AMOUNT CAPITAL DEFICIT
               ------
<S>
                 <C> <C> <C> <C> <C> <C> <C>
Issuance of common stock for cash--net....... 698,397 7,000
                                         4,141,000
Issuance of common stock and warrants for
683,000
Conversion of notes payable into common stock... 108,639 1,000
                                            699,000
25,000
Net loss.....
                                    (4,499,000)
Issuance of common stock and warrants for
163,000
Warrants issued in connection with debt
financing.....
                                 766,000
Repurchase and retirement of common shares..... (301,708) (3,000)
                                             (2,000)
                                   (2,390,000)
Net loss.....
Common stock options issued to Chief Executive
Officer.....
                                938,000
Amortization of compensatory stock options.....
Issuance of common stock, warrants and options
for services rendered and payment of
356,000
Warrants issued in connection with debt
financing.....
                                 766,000
                                           (1,000)
Repurchase and retirement of common shares..... (62,080)
Net loss.....
                                   (1,990,000)
------
               ______
<CAPTION>
                UNEARNED
                PORTION OF
               COMPENSATORY
               STOCK OPTIONS TOTAL
<S>
                <C> <C>
BALANCE--DECEMBER 31, 1995.....
                              $ 584,000
Issuance of common stock for cash--net......
                             4,148,000
Issuance of common stock and warrants for
```

Conversion of notes payable into co Redemption of preferred stock			700,00 0,000)	0	
Exercise of warrants		25,000			
Net loss		99,000)			
BALANCEDECEMBER 31, 1996			1,391,00	00	
ssuance of common stock and warr		162.000			
services rendered		163,000			
financing		66,000			
Repurchase and retirement of comm			(5,000)	)	
Net loss		90,000)			
BALANCEDECEMBER 31, 1997	7		(75,00	0)	
Common stock options issued to Ch		e			
Officer\$ Amortization of compensatory stock		366,00	00 366,0	000	
ssuance of common stock, warrants			00 500,0	700	
for services rendered and payment					
liability		5,000			
Varrants issued in connection with financing		66,000			
Repurchase and retirement of comm			(1,000)	)	
Net loss		90,000)	(-,000)		
 BALANCEJUNE 30, 1998 (UNA	 UDITED)	\$	(572,000)	\$ (578,000)	
TABLE>					
See notes to financial	statements				
F-5 NETWORK-1 SECU	DITV COLL	TIONE I	NC		
NETWORK-T SIXO					
		TIONS, I	NC.		
STATEMENTS O			NC.		
STATEMENTS O			NC.		
STATEMENTS O		OWS		HS ENDED	
STATEMENTS O	F CASH FL	ows s			
STATEMENTS O STABLE> SCAPTION>	DECE	OWS S MBER 31	SIX MONTI	JUNE 30,	
STATEMENTS O STABLE> SCAPTION>	DECE 	S MBER 31 	SIX MONTI , 	JUNE 30, 	
STATEMENTS O <table> <caption> <s></s></caption></table>	DECE 	S MBER 31 	SIX MONTI	JUNE 30, 	
STATEMENTS O STABLE> SCAPTION> SS>	DECE 	OWS  S MBER 31	C> 1997	JUNE 30, 	
STATEMENTS O  CTABLE> CAPTION>  CAPTION>	DECE 	OWS  S MBER 31	SIX MONTI , 	JUNE 30, 	
STATEMENTS O  TABLE> CAPTION>  CAPTION>  CAPTION>	DECE	OWS  S MBER 31	C> 1997 (UNAUDIT	JUNE 30, 	
STATEMENTS O  TABLE> CAPTION>  CAPTION>  CAPTION>  S> CASH FLOWS FROM OPERATIN Net loss	DECE	OWS  SMBER 31	C> 1997 (UNAUDIT <c></c>	UUNE 30, 	1,990,000)
STATEMENTS O  STABLE>  CAPTION>  CAPTION>  CASH FLOWS FROM OPERATIN Net loss	DECE	OWS  SMBER 31	C> 1997 (UNAUDIT <c></c>	UUNE 30, 	1,990,000)
STATEMENTS O  TABLE> CAPTION>  CAPTION>  CASH FLOWS FROM OPERATIN Net loss	DECE.  CS 1996  CC> IG ACTIVIT  (4,499) o net cash us	OWS  SMBER 31	(UNAUDIT (C> 1997 (UNAUDIT (C>	UUNE 30, 	
STATEMENTS O  TABLE> CAPTION>  CAPTION>  CAPTION>  CASH FLOWS FROM OPERATIN Net loss	DECE	OWS  SMBER 31	(UNAUDIT (C> 1997 (UNAUDIT (C>	UUNE 30, 	
STATEMENTS OF STATEMENTS OF STABLES  SCAPTIONS  SSS  CASH FLOWS FROM OPERATIN Net loss	DECE	OWS  SMBER 31	(UNAUDIT < C> 2,390,000) \$ 00 500,0 63,000 9	TUNE 30,	364,000
STATEMENTS OF STATEMENTS OF STABLES  SCAPTIONS  SSS  CASH FLOWS FROM OPERATIN Net loss	DECE	OWS  SMBER 31	(UNAUDIT CONTROL CONTR	TUNE 30,	364,000 ,000 18,000
STATEMENTS O  STABLE>  CAPTION>  SS>  CASH FLOWS FROM OPERATIN  Net loss	DECE	OWS  SMBER 31	(UNAUDIT CONTROL CONTR	TUNE 30,	364,000 ,000 18,000
STATEMENTS O  STABLE>  CAPTION>  SS>  CASH FLOWS FROM OPERATIN  Net loss	DECE	OWS  SMBER 31	SIX MONTI ,	TUNE 30,	364,000 ,000 18,000 346,000
STATEMENTS O  TABLE> CAPTION>  SS> CAPTION>  SS> CASH FLOWS FROM OPERATIN Net loss	DECE	OWS  SMBER 31	SIX MONTI ,	TUNE 30,	364,000 ,000 18,000
STATEMENTS O  TABLE> CAPTION>  SS> CAPTION>  SS> CASH FLOWS FROM OPERATIN Net loss	DECE.  CC> 1996  CC> IG ACTIVIT  (4,499) o net cash us arrants for se 683, ent assets	OWS  SMBER 31	SIX MONTI ,	TUNE 30,	364,000 18,000 346,000 (192,000) (5,000)
STATEMENTS O  STABLE>  CAPTION>  SS>  CASH FLOWS FROM OPERATIN  Net loss	DECE	OWS  SMBER 31 <c> 1997  TES: 0,000) \$ (2 ed in 306,00 at 15,00 at 16,00 at</c>	SIX MONTI ,	TUNE 30,	364,000 18,000 346,000 (192,000) (5,000)
STATEMENTS OF STABLES  SCAPTIONS  SSS  CASH FLOWS FROM OPERATINE Net loss	DECE	OWS  SMBER 31	(UNAUDIT < C> 1997 (UNAUDIT < C> 2,390,000) \$ 00 500,0 63,000 9 00) 65,0 00 481,0 (309,000) 5,000) 4,000 147 38,000	TUNE 30,	364,000 18,000 18,000 346,000 (192,000) (5,000) 00) 9,000
STATEMENTS OF STABLES  SCAPTIONS  SSS  CASH FLOWS FROM OPERATINE Net loss	DECE	SMBER 31	(UNAUDIT < C> 1997 (UNAUDIT < C> 2,390,000) \$ 00 500,0 63,000 9 00) 65,0 00 481,0 (309,000) 5,000) 4,000 147 38,000	TUNE 30,	364,000 18,000 18,000 346,000 (192,000) (5,000) 00) 9,000
STATEMENTS O  STABLE>  CAPTION>  SS>  CASH FLOWS FROM OPERATIN  Net loss	DECE	SMBER 31	(UNAUDIT CONTROL OF CO	TUNE 30,	364,000 18,000 18,000 0 346,000 (192,000) (5,000) 000) 9,000
STATEMENTS OF STABLES SCAPTIONS  SCAPTIONS  SSS  CASH FLOWS FROM OPERATING Net loss	DECE	SMBER 31	(UNAUDIT CONTROL OF CO	TUNE 30,	364,000 18,000 18,000 346,000 (192,000) (5,000) 000) 9,000 000) (848,000)

CASH FLOWS FROM FINANCING ACTIVITIES:
Proceeds from issuance of notes payable and warrants 700,000 1,550,000 1,000,000 1,750,000
Repayment of notes payable(400,000) (50,000)
Proceeds from exercise of options and warrants 25,000
Net proceeds from sale of common stock
Repayment of capital lease obligations (23,000) (24,000) (8,000)
Purchase of treasury shares (5,000) (1,000) (1,000)
Repayment of line of credit(62,000)
Repayment of stockholder's loan (48,000)
Redemption of preferred stock(250,000)
Deferred offering costs (90,000) (25,000) (261,000)
Net cash provided by financing activities 4,090,000 1,381,000 974,000 1,480,000
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS 121,000 (157,000) (8,000) 574,000
Cash and cash equivalentsbeginning of period 96,000 217,000 60,000
CASH AND CASH EQUIVALENTSEND OF PERIOD \$ 217,000 \$ 60,000 \$ 209,000 \$ 634,000
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:
Cash paid during the period for:
Interest\$ 32,000 \$ 1,000
Noncash transaction:
Issuance of stock in connection with repayment of

See notes to financial statements

debt.....\$ 700,000

</TABLE>

F-6 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

### NOTE A--THE COMPANY AND BASIS OF PRESENTATION

Network-1 Security Solutions, Inc. (the "Company"), formerly known as Network-1 Software & Technology, Inc., develops, markets, licenses and supports its proprietary network security software products designed to provide comprehensive security to computer networks. The Company also provides maintenance and network consulting and training services.

The accompanying financial statements have been prepared on a going concern basis. As reflected in the accompanying financial statements, the Company has incurred substantial losses from operations and as of December 31, 1997 has a working capital deficiency of \$661,000 and a stockholders' deficiency of \$75,000. Subsequent to December 31, 1997 through May 14, 1998, the Company received \$1,750,000 in short-term debt financing, a significant portion of which was from principal stockholders of the Company. However, the Company will require additional financing to satisfy its obligations and fund its operations through December 31, 1998. Also, in May 1998, the Company signed a letter of intent with an underwriter for the sale of its securities in an initial public offering (the "Offering"). There is no assurance, however, that the Offering will be consummated or that the Company will be able to obtain alternative financing. As of June 30, 1998, the Company's working capital deficiency increased to \$2,429,000 and its stockholders' deficiency increased to \$578,000. The above factors give rise to substantial doubt as to the ability of the Company to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

On July 17, 1998, the stockholders approved a 1:1.610831 reverse split of the outstanding shares of the Company's common stock. The accompanying financial statements have been retroactively adjusted to reflect the split and all references to numbers of common shares, options, warrants and per share amounts have been restated to give effect to the split.

### [1] CASH EQUIVALENTS:

The Company considers all highly liquid short-term investments purchased with a maturity of three months or less to be cash equivalents.

### [2] REVENUE RECOGNITION:

In October 1997, the AICPA issued Statement of Position ("SOP") No. 97-2, "Software Revenue Recognition," which the Company adopted, effective January 1, 1997. Such adoption had no effect on the Company's methods of recognizing revenue from its license and service activities. Prior to 1997, the Company's revenue recognition policy was in accordance with SOP No. 91-1, "Software Revenue Recognition."

License revenue is recognized upon delivery of software or delivery of a required software key. Service revenues consist of maintenance, consulting and training services. Annual renewable maintenance fees are a separate component of each contract, and are recognized ratably over the contract term. Consulting and training revenues are recognized as such services are performed.

F-7 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

NOTE B--SIGNIFICANT ACCOUNTING POLICIES (CONTINUED) [3] EQUIPMENT AND FIXTURES:

Equipment and fixtures are stated at cost and are depreciated using the straight-line method over their estimated useful lives of five years.

### [4] SOFTWARE DEVELOPMENT COSTS:

Costs to maintain developed programs and development costs incurred to establish the technological feasibility of computer software are expensed as incurred. The Company capitalizes costs incurred in producing computer software after technological feasibility of the software has been established. Such costs are amortized based on current and estimated future revenue of each product with an annual minimum equal to the straight-line amortization over the remaining estimated economic life of the product. The Company estimates the economic life of its software to be three years. At each balance sheet date, the unamortized capitalized software costs of each product are compared with the net realizable value of that product and any excess capitalized costs are written off.

## [5] INCOME TAXES:

The Company utilizes the liability method of accounting for income taxes. Under such method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect at the balance sheet date. The resulting asset or liability is adjusted to reflect enacted changes in tax law.

### [6] LOSS PER SHARE:

During 1997, the Company adopted Statement of Financial Accounting Standards No. 128, "Earnings Per Share" ("SFAS No. 128"). SFAS No. 128 requires the reporting of basic and diluted earnings/loss per share. Basic loss per share is calculated by dividing net loss by the weighted average number of outstanding common shares during the year. Diluted per share data includes the dilutive effects of options, warrants and convertible securities. As all potential common shares are anti-dilutive, they are not included in the calculation of diluted loss per share. Loss per share for 1996 has been presented to conform to SFAS No. 128.

### [7] USE OF ESTIMATES:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## [8] FINANCIAL INSTRUMENTS:

The carrying amounts of accounts receivable, accounts payable, accrued expenses, capitalized lease obligations and notes payable approximate their fair value as the interest rates on the Company's

F-8 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

NOTE B--SIGNIFICANT ACCOUNTING POLICIES (CONTINUED) indebtedness approximate current market rates and due to the short period to maturity of these instruments.

## [9] STOCK-BASED COMPENSATION:

In October 1995, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 123 ("SFAS No. 123"), "Accounting for Stock-Based Compensation". SFAS No. 123 encourages, but does not require, companies to record compensation cost for stock-based employee compensation plans at fair value. The Company has elected to continue to account for its employee stock-based compensation plans using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25 ("APB No. 25"), Accounting for Stock Issued to Employees" and to disclose the pro forma effect on net loss per share had the fair value of options been expensed. Under the provisions of APB No. 25, compensation cost for stock options is measured as the excess, if any, of the estimated market value of the Company's common stock at the date of the grant over the amount an employee must pay to acquire the stock.

## [10] INTERIM FINANCIAL STATEMENTS:

The accompanying balance sheet as of June 30, 1998, the statement of changes in stockholders' equity for the six-month period then ended and the statements of operations and cash flows for the six-month periods ended June 30, 1997 and 1998 are unaudited. In the opinion of management, all adjustments (consisting only of normal recurring accruals) considered necessary for a fair presentation have been included. The results of operations for the six-month period ended June 30, 1998 are not necessarily indicative of the results to be expected for the year ended December 31, 1998.

#### NOTE C--EQUIPMENT AND FIXTURES

Equipment and fixtures are summarized as follows:

<TABLE> <CAPTION> DECEMBER 31, ----- JUNE 30, 1996 1997 1998 <S> <C> <C> <C> Furniture and fixtures...... 59,000 59,000 59,000 774,000 766,000 769,000 Less accumulated depreciation............ (256,000) (366,000) (446,000) \$ 518,000 \$ 400,000 \$ 323,000

## F-9 NETWORK-1 SECURITY SOLUTIONS, INC.

# NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

NOTE D--CAPITALIZED SOFTWARE COSTS

T. D. D.						
<table> <caption></caption></table>						
CHI HOIV			SIX			
	DEC	AR ENDE EMBER 3	31,	EN	DED	
	1996	1997	19	998	,	
<\$> Balance, beginning of period (net of accumular Additions	<c> ted amort 75</c>	<c> cization)</c>	\$ 850,00 (321,0	C> 225, 0 000)	50,000	\$ 1,258,000
Balance, end of period (net of accumulated am	ortization		\$ 7	729,00	0 \$ 1,258,000 \$	1,042,000

						NOTE ENOTES PAYABLE						
Notes payable is summarized as follows:												
19	EMBER 197		NE 30,									
Notes payable on the earlier of a) January 1, 19 upon which the Company receives \$6,000,00 equity or debt financing from one or a series of c) a sale of all of the Company's assets or d) a consolidation of the Company:  Notes bearing interest at 6%, including \$250 related party (1)	0 net procof transacta merger of transacta merger of 0,000 pay \$ 650,000 ated parties (00,000 diparties) the date uproceeds tions c) a or consol	e date ceeds of citions or able to a 2000 \$ 6. 350,000 7 100,000 ces 400,000 on the pon of equity of sale idation	350 0 0 or	,000 50,000								
Less unamortized debt discount			) (66	68,000	)							
	.34,000		00									

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

#### NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

#### NOTE E--NOTES PAYABLE (CONTINUED)

- -----

- (1) In connection with the issuance of the notes, including \$250,000 issued to an entity which is a principal stockholder of the Company, the Company issued ten-year warrants valued at \$290,000 to purchase 90,791 shares of the Company's common stock at an exercise price of \$6.44 per share, increasing the effective interest rate on the notes to 91%.
- (2) In connection with the issuance of the notes, the Company issued ten-year warrants valued at \$159,000 to purchase 48,888 shares of the Company's common stock at an exercise price of \$6.44 per share, increasing the effective interest rate to 94%.
- (3) In connection with the issuance of the note to a corporation wholly owned by the Chairman of the Board and a principal stockholder of the Company, the Company agreed to reduce the exercise price of previously issued warrants to the noteholder from \$6.44 per share (31,040 shares) and \$8.05 per share (31,040 shares) to \$3.22 per share (see Note G[5]). In addition, the Company agreed to reduce the exercise price of warrants to purchase 124,159 shares of common stock at an exercise price of \$3.22 per share previously issued to the noteholder to \$1.61 per share. The Company valued the modified warrants at \$45,000 in excess of the value ascribed to the original warrants, increasing the effective interest rate to 96%. The warrants exercisable at \$3.22 per share were further reduced to \$1.61 per share in connection with the issuance in November 1997 of a note for \$50,000 to the same corporation referred to above which was repaid in December 1997. This modification was valued at \$22,000 in excess of the value ascribed to the warrants as previously modified.
- (4) In connection with the issuance of the notes to an entity which is a principal stockholder of the Company and to the corporation referred to in (3) above, the Company issued ten-year warrants valued at \$168,000 to purchase 70,949 shares of the Company's common stock at an exercise price of \$4.83 per share, increasing the effective interest rate to 86%.
- (5) The Company issued notes for \$400,000, \$100,000 and \$1,250,000 on March 2, 1998, April 24, 1998 and May 14, 1998, respectively. In connection with the issuance of the notes, \$1,400,000 of which are payable to the Chairman of the Board and the entities referred to in (4) above, the Company issued ten-year warrants valued at \$766,000 to purchase 325,919 shares of the Company's common stock at an exercise price of \$4.83 per share, increasing the effective interest rate to 92%.

The proceeds from the issuance of the notes were allocated to the debt and the warrants based on their estimated fair values. The Company estimated the fair value of these warrants using the Black-Scholes pricing model and has accounted for this amount as a debt discount to be amortized over the life of the debt.

Interest expense for the years ended December 31, 1996, 1997 and for the six months ended June 30, 1997 and 1998 includes \$325,000, \$267,000, \$44,000 and \$323,000, respectively, of interest and amortization of debt discount on notes to related parties.

F-11 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

NOTE F--STOCKHOLDERS' EQUITY

[1] PREFERRED STOCK:

The Company has outstanding 500,000 shares of Series B convertible preferred stock. Such stock is convertible on a 1.610831-to-1 basis into common shares and automatically converts into common shares upon the completion of the Offering. The Series B convertible preferred stock has identical voting rights as the Company's common stock and has a liquidation preference of \$1.00 per share.

#### [2] STOCK OPTIONS AND WARRANTS:

During 1996, the Board of Directors and stockholders approved the adoption of the 1996 Stock Option Plan (the "1996 Plan"). The 1996 Plan, as amended, provides for the granting of both incentive and non-qualified options to purchase up to 1,050,000 shares of common stock of the Company.

The term of options granted under the 1996 Plan may not exceed ten years (five years in the case of an incentive stock option granted to an optionee owning more than 10% of the voting stock of the Company). The option price for incentive stock options can not be less than 100% of the fair market value of the shares of common stock at the time the option is granted (110% for a 10% stockholder). The exercise price for non-qualified options is set by the Compensation Committee in its discretion.

The following table summarizes the activity under the 1996 Plan:

<TABLE> <CAPTION>

## YEAR ENDED DECEMBER 31,

	1996	1		X MONTH JUNE :			
	AVE	HTED RAGE CISE PRICE	AV EXE	EIGHTED ERAGE ERCISE S PRICE	AV EXE	- EIGHTED ERAGE RCISE ES PRI	ICE
<s> Options outstanding at beginning of Granted</s>	<c> &lt;0</c>	C> <	C> <0		C> <c> 6.44 184</c>		5.72
Cancelled	(3,259)	\$ 6.44	(79,152)	) \$ 6.30	(135,644)	\$ 5.60	
Options outstanding at end of period	od	104,139	\$ 6.44 -	184,687	\$ 5.72	448,875	\$ 5.74
Options exercisable at end of period-	od	82,256	\$ 6.44	184,687	\$ 5.72	256,761 \$	5.33

  |  |  |  |  |  |  |F-12 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

# NOTE F--STOCKHOLDERS' EQUITY (CONTINUED)

The following table presents information relating to stock options outstanding at December 31, 1997:

<TABLE>
<CAPTION>
OPTIONS OUTSTANDING AND EXERCISABLE
-----<S> <C> <C>

11,2	RAGE RCISE	REMAINING LIFE IN
SHARES	PRICE	YEARS
82,876 \$ 101,811 \$		9.75 9.03
184,687 \$	5.72	9.35

  |  |The following table presents information relating to stock options outstanding at June 30, 1998 (unaudited):

<tabl< th=""><th>LE&gt;</th></tabl<>	LE>
$< C \Delta P^{-}$	rion>

OPTIONS OUTSTANDING OPTIONS EXERCISABLE

<s></s>	<	<c></c>	· <(	C>	<c></c>	<	<c></c>		<c></c>	
			WEIG	HTED				WE	IGHTED	
	W	EIC	HTED	AVE	RAGE			WEI	GHTED	AVERAGE
	A	VE	RAGE	REMA	INING			AV	ERAGE	REMAINING
	ΕΣ	KEF	RCISE	LIFE II	N		ЕУ	KERCIS	SE LIF	E IN
SHAF	RES	,	PRICE	YE	ARS	SI	HAI	RES	PRICE	YEARS
130,9	989	\$	4.83	9.56	130,9	989	\$	4.83	9.56	
197,8	328	\$	5.60	9.92	88,2	14	\$	5.60	9.92	
37,5	58	\$	6.44	8.42	37,55	58	\$	6.44	8.42	
82,5	00	\$	7.20	10.00						
448,8	375	\$	5.74	9.70	256,7	761	\$	5.33	9.51	
<td>BLE</td> <td>&gt;</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	BLE	>								

The weighted average fair value at date of grant for options granted during the years ended December 31, 1996 and 1997 and the six months ended June 30, 1997 and 1998 were \$3.20, \$2.76, \$3.21 and \$2.70 per option, respectively. The fair value of options at date of grant was estimated using the Black-Scholes option pricing model utilizing the following weighted average assumptions:

<table></table>					
<caption></caption>					
	DECEN	MBER 31,		JUNE 30,	
<s></s>	<c></c>	<c></c>	<c></c>	<c></c>	
	1996	1997	1997	1998	
Risk-free interest rates		6.43%	6.50%	6.59%	5.62%
Expected option life in years		6	6	6 6	
Expected stock price volatility		40%	40	% 40%	40%
Expected dividend yield		0%	0%	0%	0%

  |  |  |  |  |Had the Company elected to recognize compensation cost based on the fair value of the options at the date of grant as prescribed by SFAS 123, net loss for the years ended December 31, 1996 and 1997 and for the six-month periods ended June 30, 1997 and 1998 would have been \$(4,842,000), \$(2,830,000), \$(1,007,000) and \$(2,898,000) or \$(2.65), \$(1.53), \$(.52) and \$(1.71), respectively, per share.

F-13 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

#### NOTE F--STOCKHOLDERS' EQUITY (CONTINUED)

[3] The Company has the following warrants and options referred to in [4] below to purchase common stock outstanding as of December 31, 1997:

```
<TABLE>
<CAPTION>
NUMBER
 OF EXERCISE
SHARES PRICE
- -----
<S> <C>
186,239.. $ 1.61
62,856... 2.42
62,080...
         3.22
70,949...
318,159..
        6.44
93,120... 9.66
793,403
- -----
- -----
</TABLE>
```

From March through May 1998, in connection with the issuance of notes (see Note E[5]), the Company issued warrants to purchase 325,919 shares of the Company's common stock at an exercise price of \$4.83. The Company also issued a warrant to purchase 6,208 shares of the Company's common stock at an exercise price of \$6.04 for services rendered.

On July 8, 1998, the Company entered into an agreement with certain of its option and warrant holders pursuant to which the Company issued 596,741 shares of its common stock in exchange for cancellation of outstanding warrants to purchase 789,521 shares of the Company's common stock.

## [4] PRIVATE PLACEMENT:

During March 1996, the Company completed a private placement of its securities. The Company issued 667,357 shares of its common stock for \$6.44 a share, yielding gross proceeds of \$4,300,000. In connection with the private placement the Company incurred costs aggregating \$352,000 including \$279,000 in commissions and expense allowance paid to the placement agent. The Company also issued options to purchase 66,736 shares of common stock at an exercise price of \$6.44 per share expiring in March 2001 to the placement agents in connection with the private placement. The investors in the private placement were granted certain demand and piggyback registration rights. The Company also sold 31,040 shares of stock in 1996 receiving proceeds of \$200,000.

#### NOTE G--COMMITMENTS AND CONTINGENCIES

# [1] OPERATING LEASES:

The Company leases office facilities in Florida, New York and Texas under operating leases expiring through 1999. Rental commitments for the remaining term of the Company's noncancellable leases relating to office space expiring at various dates through 1999 are as follows:

Rental expense for the years December 31, 1996 and 1997 and for the six-month periods ended June 30, 1997 and 1998 aggregated \$142,000,

#### F-14 NETWORK-1 SECURITY SOLUTIONS, INC.

#### NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

# NOTE G--COMMITMENTS AND CONTINGENCIES (CONTINUED) [2] SOFTWARE DISTRIBUTION AGREEMENTS:

- [A] In June 1997, the Company entered into a software distribution agreement pursuant to which the Company licensed, on a nonexclusive basis, the right to incorporate and/or bundle certain technology of the Company, with the customer's products. In connection therewith, the Company, which is entitled to royalties based on the customer's sales, received a \$500,000, nonrefundable prepaid royalty, which is included in license revenue for the year ended December 31, 1997 and the six months ended June 30, 1997.
- [B] In September 1997, the Company entered into a software distribution agreement, pursuant to which the Company has the right to incorporate certain technology into its software. The Company is required to make certain royalty payments based on unit sales as defined. The Company is obligated to pay a minimum of \$100,000 in royalties pursuant to the agreement for the period September 1997 to March 30, 1999. As of December 31, 1997 and June 30, 1998, accrued royalty payable was approximately \$29,000 and \$44,000, respectively.
- [C] In July 1996, the Company entered into an agreement pursuant to which certain technology was developed for the Company. The Company is required to make certain royalty payments based on unit sales as defined, up to a maximum royalty payment of \$100,000. For the year ended December 31, 1997 and the six months ended June 30, 1998, royalties owed pursuant to such agreement were de minimus.

## [3] EMPLOYMENT AGREEMENTS:

In May 1998, the Company entered into an employment agreement with its President and Chief Executive Officer which provides for a base salary of \$150,000, subject to annual increases of up to 20% by the Board of Directors at their discretion. The agreement also provides for an annual bonus of up to \$50,000 as determined by the Board of Directors in its discretion. The agreement expires in May 2002. In connection therewith, the Company granted the President a five-year option to purchase 294,879 shares of the Company's common stock at an exercise price of \$2.42 per share. The option vests 34% immediately and then 22% per year thereafter. As the estimated fair value of the Company's common stock at the date of grant of the option (\$5.60 per share) was in excess of the exercise price the Company will incur aggregate compensation expense of approximately \$938,000 over the service period, \$366,000 of which was charged to expense during the six months ended June 30, 1998 based on the vesting provisions of the option.

The Company has employment agreements with six other officers providing for aggregate annual salaries of \$120,000 through April 1999 with respect to one officer and aggregate annual salaries of \$640,000 through May and August 2001 with respect to five officers. Certain of the agreements provide for the granting of bonuses at the discretion of the Board of Directors, as well as options to purchase shares of common stock.

Aggregate salary commitments pursuant to employment agreements are \$804,000, \$820,000, \$790,000, \$470,000 and \$56,000 for 1998, 1999, 2000, 2001 and 2002, respectively.

F-15 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

# NOTE G--COMMITMENTS AND CONTINGENCIES (CONTINUED) [4] SAVINGS AND INVESTMENT PLAN:

The Company has a Savings and Investment Plan which allows participants to make contributions by salary reduction pursuant to Section 401(k) of the Internal Revenue Code of 1986. The Company also may make discretionary annual matching contributions in amounts determined by the Board of Directors, subject to statutory limits. The Company did not make any contributions to the 401(k) Plan during the years ended December 31, 1996 and 1997 and the six months ended June 30, 1998.

#### [5] FINANCIAL ADVISORY AGREEMENT:

In September 1996, as amended in January 1997, the Company entered into a financial advisory agreement with a corporation owned by the Chairman of the Board and a principal stockholder, which expires in January 1999. Pursuant to such agreement, monthly fees of \$12,500 were to be paid to such corporation, and the Company issued two 7-year warrants, each to purchase up to 31,040 shares of common stock at an exercise price of \$6.44 and \$8.05, respectively. Such exercise prices were subsequently reduced to an exercise price of \$1.61 per share (see Note E[3]). The Company also agreed to pay such corporation and another corporation which is a principal stockholder of the Company, a cash fee equal to 3% of the total proceeds or other consideration received in connection with a merger or sale of substantially all of the Company's assets completed by January 2001. Expenses under the agreement, including amortization of the value ascribed to the warrants, included in general and administrative expenses, for the year ended December 31, 1997 and the six-month periods ended June 30, 1997 and 1998 amounted to \$253,000, \$135,000 and \$121,000, respectively.

On May 14, 1998, the Company terminated the monthly fee provision of the financial advisory agreement and issued 31,250 shares of common stock to this entity in satisfaction of amounts owed pursuant the agreement.

#### NOTE H--INCOME TAXES

The principal components of deferred tax assets and valuation allowance are as follows:

<TABLE> <CAPTION>

</TABLE>

	YEA	R ENDED	ENDE	D
	DECEMBER 31,		JUNE 3	30,
	1996	1997		
<s></s>	<c></c>	<c></c>	<c></c>	
Deferred tax assets:				
Net operating loss carryforwar	rds	. \$ 1,464,0	000 \$ 2,122,0	000 \$ 2,882,000
Common stock and warrants i compensation and debt disco				
deducted for tax purposes		266,000	525,000	503,000
Other	· · · · · · · · · · · · · · · · · · ·		,000 275,	000
		00 2,908,0	000 3,660,0	000
Valuation allowance			, , ,	(3,660,000)
Net deferred tax asset		0 \$		0

SIX MONTHS

F-16 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

#### NOTE H--INCOME TAXES (CONTINUED)

The Company has recorded a valuation allowance for the full amount of its

deferred tax assets as the likelihood of its future realization cannot be presently determined.

The difference between the tax benefit and the amount that would be computed by applying the statutory federal income tax rate to loss before taxes is attributable to the following:

<TABLE> <CAPTION> SIX MONTHS ENDED YEAR ENDED DECEMBER 31. JUNE 30. 1996 1997 1997 1998 <S> <C> <C> <C> <C> Increase in valuation allowance on deferred tax 0% 0% 0% 0% ----------

At December 31, 1997, the Company has available net operating loss carryforwards to reduce future federal taxable income of approximately \$5,500,000 for tax reporting purposes which expire from 2009 through 2012. Pursuant to the provisions of the Internal Revenue Code, future utilization of these past losses is subject to certain limitations based on changes in the ownership of the Company's stock that have occurred or are likely to occur.

## NOTE I--OTHER MATTERS

</TABLE>

- [1] For the year ended December 31, 1997, approximately \$500,000 (21%), \$362,000 (15%) and \$298,000 (13%) of the Company's revenues were from three customers. For the six months ended June 30, 1998, approximately \$285,000 (32%), \$154,000 (17%) and \$95,000 (11%) of the Company's revenues respectively, were from one customer, the second customer referred to above, and a third customer. No customer accounted for 10% or more of the Company's revenue for the year ended December 31, 1996 and one customer accounted for \$500,000 in sales (35%) for the six months ended June 30, 1997.
- [2] For the years ended December 31, 1996 and 1997 and for the six months ended June 30, 1997 and 1998, export sales of the Company's products amounted to approximately \$69,000, \$370,000, \$237,000 and \$16,000, respectively.

## NOTE J--SUBSEQUENT EVENTS

[1] In August, 1998 the Company formed a wholly owned subsidiary, Network-1 Acquisition Corp. (the "Purchaser"). Pursuant to an agreement and plan of merger dated September 11, 1998 between the Company, the Purchaser and CommHome Systems Corporation ("CommHome"), upon closing of the Offering CommHome will be merged with and into the Purchaser with the shareholders of CommHome receiving 46,667 shares of the Company's common stock. The Company's President is also the President of CommHome and owns 51% of its outstanding common stock. The Purchaser also agreed to assume liabilities of CommHome of up to \$200,000 including \$105,000 which is owed to two officers of the Company and which will be satisfied by the issuance of 17,500 shares of the Company's common stock. The Company will incur a charge of approximately \$469,000 for purchased research and development upon the acquisition which will be accounted for as a purchase. CommHome is a

F-17 NETWORK-1 SECURITY SOLUTIONS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

(UNAUDITED WITH RESPECT TO DATA AS OF JUNE 30, 1998 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 1997 AND 1998)

#### NOTE J--SUBSEQUENT EVENTS (CONTINUED)

development stage company and has had no revenues. The principal activity has been the design of residential networking solutions. The Company intends to incorporate CommHome's designs into its future security products.

[2] In October 1998, the Company entered into an agreement, effective upon consummation of the Offering, with certain of its holders of outstanding promissory notes, including accrued interest, of \$3,204,888 (See Note E), pursuant to which the Company will issue 562,836 shares of Series C Preferred Stock in exchange for cancellation of promissory notes, including accrued interest, of \$2,954,888, subject to adjustment in the event the Underwriter's over-allotment option is exercised. The balance of the promissiory notes in the principal amount of \$250,000 will be repaid from the proceeds of the Offering. In the event the Underwriter's over-allotment option is exercised in whole or in part, 50% of the net proceeds received by the Company from such exercise shall be used to repay the promissiory notes on a pro-rata basis and the 562,836 shares of Series C Preferred Stock to be issued to the holders of the promissory notes shall be proportionately reduced.

Upon consummation of the Offering, the Company will have outstanding 562,836 shares of Series C Convertible Preferred Stock (subject to adjustment in the event the Underwriter exercises the over-allotment option). The Series C Convertible Preferred Stock is convertible on a 1-to-1 basis into common shares and has identical voting rights as the Company's Common Stock, will have a liquidation preference of \$5.25 per share and will be entitled to equivalent dividends and distributions as those paid on Common Shares.

[3] In October 1998, the Company was notified by the licensee of the June 1997 software distribution agreement (see Note G[2][a]) that it was terminating the agreement effective December 31, 1998.

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_	

NO DEALER, SALESPERSON OR OTHER PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS IN CONNECTION WITH THIS OFFERING AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY OR THE UNDERWRITER. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITY OTHER THAN THE SECURITIES OFFERED BY THIS PROSPECTUS, OR AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITIES BY ANYONE IN ANY JURISDICTION IN WHICH SUCH OFFER OR SOLICITATION IS NOT AUTHORIZED OR IS UNLAWFUL. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY SALE MADE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THE INFORMATION CONTAINED HEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO THE DATE HEREOF.

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  ||  |  |
|  |  |
UNTIL , 1998 (25 DAYS AFTER THE DATE OF THIS PROSPECTUS), ALL DEALERS EFFECTING TRANSACTIONS IN THE REGISTERED SECURITIES, WHETHER OR NOT PARTICIPATING IN THIS DISTRIBUTION, MAY BE REQUIRED TO DELIVER A PROSPECTUS. THIS DELIVERY REQUIREMENT IS IN ADDITION TO THE OBLIGATION OF DEALERS TO DELIVER A PROSPECTUS WHEN ACTING AS AN UNDERWRITER AND WITH RESPECT TO THEIR UNSOLD ALLOTMENTS OR SUBSCRIPTIONS.

1,700,000 SHARES

[LOGO]

COMMON STOCK

-----
PROSPECTUS

----
WHALE SECURITIES CO., L.P.

, 1998

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

## ITEM 24. INDEMNIFICATION OF DIRECTORS AND OFFICERS

As permitted by Section 102(b)(7) of the Delaware General Corporation Law (the "GCL"), Article VI of the Company's Amended and Restated Certificate of Incorporation, filed as Exhibit 3.1 hereto, includes a provision that eliminates any director's personal liability to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director. Such elimination of personal liability does not apply to the following: (i) breach of the duty of loyalty to the Company or its stockholders; (ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law; (iii) payment of an illegal dividend or an illegal redemption or purchase of the Company's stock, pursuant to Section 174 of the GCL; or (iv) any transaction from which the director derived an improper benefit. If the GCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Company shall be eliminated or limited to the fullest extent permitted by the GCL, as so amended. Any repeal or modification of this Article by the stockholders of the Company shall not adversely affect any right or protection of a director of the Company with respect to events occurring prior to the time of such repeal or modification.

As permitted by Section 145 of the GCL, pursuant to Article VII of the Company's Amended and Restated Certificate of Incorporation, the Company, to the fullest extent permitted by the provisions of the GCL, as now or hereafter in effect, indemnifies any director, officer, employee or agent of the Company and certain other persons serving at the request of the Company in related

capacities against amounts paid and expenses incurred in connection with an action or proceeding to which that person is or is threatened to be made a party by reasons of such position, if such person shall have acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company and, in any criminal proceeding, if such person had no reasonable cause to believe his conduct was unlawful; provided that, in the case of actions brought by or in the right of the Company, no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the Company unless and only to the extent that the adjudicating court determines that such indemnification is proper under the circumstances. The indemnification provided by Article VII of the Company's Amended and Restated Certificate of Incorporation does not limit or exclude any rights, indemnities or limitations of liability to which any person may be entitled, whether as a matter of law, under the Bylaws of the Company, by agreement, vote of the stockholders or vote of disinterested directors of the Company or otherwise.

The Company believes that the indemnification provisions contained in Article VI and Article VII of the Company's Amended and Restated Certificate of Incorporation have assisted and will assist the Company in attracting and retaining qualified individuals to serve as directors and officers.

The Underwriting Agreement, filed as Exhibit 1.1 hereto, provides for indemnification by the Underwriter of the Company, its directors and officers, and by the Company of the Underwriter, for certain liabilities, including liabilities under the Act, and affords certain rights of contribution with respect thereto.

#### ITEM 25. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth all expenses, other than underwriting discounts and commissions, payable by the Company in connection with the sale of the securities being registered.

#### II-1

<TARLE>

The foregoing, except for the SEC Registration Fee and NASD Filing Fee are estimates.

<1ABLE> <s> <c>         SEC Registration Fee</c></s>
NASD Filing Fee\$2,472.52
NASDAQ SmallCap Listing Fee \$ 10,000
Boston Stock Exchange Listing Fee \$ 7,500
Accounting Fees and Expenses
Legal Fees and Expenses (other than Blue Sky)
Blue Sky Fees and Expenses (including legal and filing fees) \$ 50,000
Printing and Engraving Expenses
Directors' and Officers' Liability Insurance \$ 70,000
Transfer Agent Fees and Expenses \$ 2,500
Miscellaneous
Total

#### ITEM 26. RECENT SALES OF UNREGISTERED SECURITIES

During the past three years, the Company has issued unregistered securities to the persons described below. No underwriting discounts or commissions were paid in connection with such issuance of securities, except in connection with the Company's issuance of an aggregate 667,359 shares of Common Stock on March

- 14, 1996 and March 21, 1996 (the "March 1996 Private Offering," as further described below under paragraph 5). In issuing the securities described below, the Company relied upon the exemption from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), by reason of Section 4(2) thereof and Regulation D promulgated thereunder, based on the fact that each investor was either an "accredited investor" as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act or such investor had such knowledge and experience in financial and business matters that such person was capable of evaluating the merits and risks of the investment. The share amounts below reflect a stock split at the rate of 12,836.97-to-1 on March 2, 1994, and a reverse stock split at the rate of 1-for-1.61083 on July 20, 1998.
- (1) On November 29, 1995, the Company issued to Corey M. Horowitz warrants to purchase 124,159 shares of Common Stock at an exercise price of \$3.22 per share, expiring November 29, 2005, in consideration for a loan of \$150,000.
- (2) On November 29, 1995, the Company issued to the CAPCOR Employee Pension Plan warrants to purchase 62,080 shares of Common Stock at an exercise price of \$3.22 per share, expiring November 29, 2005, in consideration for a loan of \$75,000.
- (3) On March 14, 1996, the Company issued to each of Irwin Lieber, Barry Rubenstein and Eli Oxenhorn warrants to purchase 31,040 shares of Common Stock at an exercise price of \$6.44 per share, expiring March 14, 2006, and warrants to purchase 31,040 shares of Common Stock at an exercise price of \$9.67 per share, expiring March 14, 2006, in consideration for their agreement to serve on the Company's advisory board.
- (4) On March 14, 1996, the Company issued to Bizar Martin & Taub, LLP warrants to purchase 9,312 shares of Common Stock at an exercise price of \$6.44 per share, expiring March 14, 2006, in consideration for services rendered.

#### II-2

(5) On March 14, 1996 and March 21, 1996, in connection with the March 1996 Private Offering, the Company issued to 34 investors an aggregate 667,359 shares of Common Stock, in consideration for payment of \$6.44 per share, for an aggregate consideration of \$4.3 million. GKN Securities Corp. served as Placement Agent for the March 1996 Private Offering, and received a 4.5% sales commission (or \$193,500). The Company also issued to GKN Securities Corp., related parties and Barington Capital Group, L.P. options to purchase an aggregate 66,736 shares of Common Stock at an exercise price of \$6.44 per share, expiring March 14, 2001, in consideration of \$100. The following investors participated in the March 1996 Private Offering:

<TABLE> <CAPTION> NAME

## AMOUNT INVESTED NUMBER OF SHARES

<s> <c></c></s>	<c></c>	
ALSA, Inc\$	50,000	7,760
Applewood Associates, L.P	2,000,0	310,399
Neil Bellet	25,000	3,880
Jay H. Bernstein	50,000	7,760
Stanley H. Blum	50,000	7,760
Elliott Broidy	100,000	15,520
Eliot Brown	25,000	3,880
Kenneth D. Cole	25,000	3,880
Dalewood Associates, L.P	150,00	00 23,280
E&M RP Trust		15,520
Craig Effron	35,000	5,432
Steven Etra	50,000	7,760
Barry K. Fingerhut	200,000	31,040
Lloyd Goldman	25,000	3,880
Richard C. Kaufman &		
Elaine J. Lenart JTRWOS	50,00	0 7,760
Irwin Lieber	150,000	23,280
Jonathan Lieber	20,000	3,104
Seth Lieber	30,000	4,656
Lyonshare Venture Capital	50,000	0 7,760
Mariwood Investments	35,000	5,432
Jody Miller	25,000	3,880
Eli Oxenhorn	200,000	31,040

Jonathan Robinson	25,000	3,880
Andrew Rosen	25,000	3,880
Steven Rosen	25,000	3,880
Barry Rubenstein	200,000	31,040
Curtis Schenker	30,000	4,656
Seneca Ventures	150,000	23,280
Matthew Smith	10,000	1,552
David Thalheim	50,000	7,760
Michael Weissman	25,000	3,880
Lance Wolfson	25,000	3,880
William Wolfson	25,000	3,880
Woodland Venture Fund	265,000	41,128
Total	0,000 66	7,359

(6) On March 14, 1996, the Company issued to Corey M. Horowitz 24,832 shares of Common Stock and 83,808 shares of Common Stock to Security Partners, L.P. in consideration for conversion of outstanding debt in the aggregate principal amount of \$700,000.

#### II-3

- (7) On March 21, 1996, the Company issued to J. Robert Scott, Inc. 6,467 shares of Common Stock in consideration for services rendered.
- (8) On April 26, 1996, the Company issued to Michael Stansky and Jill Stansky as Tenants of the Entirety, w/r/o/s, 3,880 shares of Common Stock, in consideration for payment of \$6.44 per share or aggregate consideration of \$25,000.
- (9) On April 28, 1996, the Company issued to James J. Pallotta 7,760 shares of Common Stock, in consideration for payment of \$6.44 per share or aggregate consideration of \$50,000.
- (10) On April 29, 1996, the Company issued to Robert Russo 2,483 shares of Common Stock in consideration for services rendered as the Company's President.
- (11) On June 3, 1996, the Company issued to Navigator Fund, L.P. 17,615 shares of Common Stock in consideration for payment of \$6.44 per share or aggregate consideration of \$113,500.
- (12) On June 3, 1996, the Company issued to Navigator Global Fund 1,785 shares of Common Stock in consideration for payment of \$6.44 per share or aggregate consideration of \$11,500.
- (13) On October 3, 1996, the Company issued to each of Craig Bandes and Mona Geller 7,760 shares of Common Stock, upon the exercise of stock options by Bandes and Geller at an exercise price of \$1.61 per share or aggregate consideration of \$25,000. The stock options had been issued pursuant to Stock Option Agreements, dated April 4, 1994, in consideration for financial advisory services rendered to the Company.
- (14) On October 11, 1996, the Company issued to CMH Capital Management Corp. ("CMH") warrants to purchase 31,040 shares of Common Stock at an exercise price of \$8.05 per share, expiring October 11, 2003, in consideration for financial advisory services.
- (15) On October 22, 1996, the Company issued to Communica, Inc. and related parties 9,312 shares of Common Stock in consideration for services rendered.
- (16) The Company's Stock Option Plan provides for the grant of stock options to key employees, directors, and consultants of the Company (the "Stock Option Plan"). Under the Stock Option Plan, employees (including officers and employee directors) are eligible to receive grants of incentive stock options, which are intended to be "Incentive Stock Options" as defined by Section 422 of the Internal Revenue Code of 1986, as amended. Employees (including officers), directors of the Company or any affiliates or consultants are eligible to receive grants of non-qualified options. An aggregate of 1,050,000 shares of Common Stock has been reserved for issuance upon exercise of outstanding options issued under the Stock Option Plan. The Company believes that the Stock Option Plan grants described in this

paragraph are exempt from the registration requirements of the Securities Act by reason of Rule 701 promulgated thereunder, because such options were granted pursuant to a written compensatory benefit plan of the Company, copies of which were provided to each participant, and the aggregate offering price did not exceed the limit prescribed by Rule 701 in connection with any such grant. As of October 20, 1998, pursuant to the Stock Option Plan, options to purchase an aggregate of 855,216 shares of Common Stock were outstanding, including options to purchase 86,290 shares of Common Stock at an exercise price of \$4.83 per share, options to purchase 194,628 shares of Common Stock at an exercise price of \$5.60 per share and options to purchase 574,298 shares of Common Stock at an exercise price of \$6.00 per share. No such outstanding options had been exercised.

- (17) On January 15, 1997, the Company issued to CMH warrants to purchase 31,040 shares of Common Stock at an exercise price of \$6.44 per share, expiring January 15, 2004, in consideration for financial advisory services to the Company.
- (18) In February and April of 1997, the Company borrowed \$1 million through the issuance to ten (10) investors of unsecured promissory notes, bearing 6% interest (the "February and April 1997

#### 11-4

Private Financing"), and due at the earlier of (i) one year from the date of issuance, (ii) the date upon which the Company receives \$4,000,000 net proceeds (after deduction of all related offering expenses) of equity or debt financing from one transaction or a series of transactions, (iii) a sale of all or substantially all of the Company's assets or (iv) a merger or consolidation of the Company. In addition, as part of the February and April 1997 Private Financing, investors received receive ten (10) year warrants to purchase an aggregate of 139,679 shares of Common Stock at an exercise price of \$6.44 per share (the "Warrants"), as follows:

- (a) On February 24, 1997, the Company issued to Charles P. Stevenson, Jr. warrants to purchase 13,968 shares of Common Stock in consideration for a loan of \$100,000;
- (b) On February 24, 1997, the Company issued to Albert Kalimian warrants to purchase 6,984 shares of Common Stock in consideration for a loan of \$50,000;
- (c) On February 24, 1997, the Company issued to Raptur Management Co. warrants to purchase 13,968 shares of Common Stock in consideration for a loan of \$100,000;
- (d) On February 24, 1997, the Company issued to Douglas Lipton warrants to purchase 6,984 shares of Common Stock in consideration for a loan of \$50,000;
- (e) On February 24, 1997, the Company issued to Applewood Associates, L.P. warrants to purchase 34,920 shares of Common Stock in consideration for a loan of \$250,000;
- (f) On February 24, 1997, the Company issued to Lawrence Wein warrants to purchase 3,492 shares of Common Stock in consideration for a loan of \$25,000;
- (g) On February 24, 1997, the Company issued to Steven Heineman warrants to purchase 3,492 shares of Common Stock in consideration for a loan of \$25,000;
- (h) On February 24, 1997, the Company issued to Herb Karlitz warrants to purchase 6,984 shares of Common Stock in consideration for a loan of \$50,000:
- (i) On April 29, 1997, the Company issued to Navigator Fund, L.P. warrants to purchase 42,882 shares of Common Stock in consideration for a loan of \$307,000; and
- (j) On April 29, 1997, the Company issued to Navigator Global Fund warrants to purchase 6,006 shares of Common Stock in consideration for a loan of \$43,000.

- (19) On February 24, 1997, the Company issued to Alan Kaufman warrants to purchase 9,312 shares of Common Stock at an exercise price of \$6.44 per share, expiring February 24, 2007, in consideration for services rendered.
- (20) On August 8, 1997, the Company agreed to reduce the exercise prices of warrants to purchase 31,040 shares of Common Stock, at an exercise price of \$8.05 per share, issued to CMH on October 11, 1996 and warrants to purchase 31,040 shares of Common Stock, at an exercise price of \$6.44 per share, issued to CMH on January 15, 1997, to an exercise price of \$3.22 per share, in consideration for a loan \$100,000 made by CMH. In addition, the Company agreed to reduce the exercise price of warrants to purchase 124,159 shares of Common Stock, at an exercise price of \$3.22 per share, issued to Corey M. Horowitz on November 29, 1995, to an exercise price of \$1.61 per share, in consideration for that same loan.
- (21) On September 26, 1997, the Company issued to Applewood Associates, L.P. warrants to purchase 62,080 shares of Common Stock at an exercise price of \$4.83 per share, expiring September 26, 2007, in consideration for a loan of \$350,000.
- (22) On September 26, 1997, the Company issued to CMH warrants to purchase 8,869 shares of Common Stock at an exercise price of \$4.83 per share, expiring September 26, 2007, in consideration for a loan of \$50,000.

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- (23) On November 12, 1997, the Company issued to Progressive Strategies, Inc. 2,793 shares of Common Stock in consideration for services rendered.
- (24) On November 21, 1997, in consideration of a loan of \$50,000, the Company agreed to reduce the exercise prices to \$1.61 of warrants to purchase 31,040 shares of Common Stock, originally issued to CMH at an exercise price of \$8.05 per share on October 11, 1996 and warrants to purchase 31,040 shares of Common Stock, originally issued to CMH at an exercise price of \$6.44 per share on January 15, 1997.
- (25) On February 17, 1998, the Company issued to Venture Strategies, Inc. warrants to purchase 6,207 shares of Common Stock at an exercise price of \$6.04 per share, expiring February 17, 2002, in consideration for services rendered.
- (26) On March 2, 1998, the Company issued an aggregate of \$400,000 of promissory notes and ten year warrants to purchase up to 74,496 shares of Common Stock at an exercise price of \$4.83 per share to four (4) investors including Applewood Associates, L.P. (\$300,000 note and warrants to purchase 55,872 shares of common stock), CMH Capital Management Corp.(\$50,000 note and warrants to purchase 9,312 shares of common stock), Robert Graifman (\$25,000 note and warrants to purchase 4,656 shares of common stock) and Herb Karlitz (\$25,000 note and warrants to purchase 4,656 shares of common stock).
- (27) On April 24, 1998, the Company issued to each of Corey Horowitz and MBF Capital Corp. ten (10) year warrants to purchase 9,312 shares of Common Stock at an exercise price of \$4.83 per share in consideration for a loan of \$50,000 by each party.
- (28) On May 10, 1998, the Company issued 2,897 shares of Common Stock to High Tech Ventures in consideration for services rendered.
- (29) On May 14, 1998, the Company issued an aggregate of \$1,250,000 of promissory notes and ten (10) year warrants to purchase up to 232,799 shares of Common Stock at an exercise price of \$4.83 per share to Applewood Associates, L.P. (\$1,000,000 note and warrants to purchase 186,239 shares) and Bentley One, Ltd. (\$250,000 note and warrants to purchase 46,560 shares).
- (30) On May 14, 1998, the Company issued 31,250 shares of Common Stock to CMH in connection with advisory services rendered to the Company.
- (31) On May 18, 1998, the Company issued a five (5) year option to Avi A. Fogel to purchase up to 294,879 shares of the Common Stock at an exercise price of \$2.42 per share, in consideration for Mr. Fogel's execution of his employment agreement. The shares underlying the option vest as follows: 34% on the date of issuance of the option and 22% per year for each year

thereafter.

- (32) On July 8, 1998, the Company issued an aggregate of 596,741 shares of its Common Stock in exchange for the cancellation of outstanding warrants and options to purchase an aggregate of 789,521 shares of Common Stock, as follows:
  - (a) 261,565 shares of its Common Stock to Applewood Associates, L.P. in exchange for warrants to purchase 339,111 shares of Common Stock;
  - (b) 14,070 shares of its Common Stock to CMH Capital Management Corp. in exchange for warrants to purchase 18,181 shares of Common Stock;
  - (c) 117,138 shares of its Common Stock to Corey M. Horowitz in exchange for warrants to purchase 133,471 shares of Common Stock;
  - (d) 49,381 shares of its Common Stock to CAPCOR Employee Pension Plan in exchange for warrants to purchase 62,080 shares of Common Stock;

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- (e) 9,824 shares of its Common Stock to Raptur Management Co. in exchange for warrants to purchase 13,968 shares of Common Stock;
- (f) 4,912 shares of its Common Stock to Douglas Lipton in exchange for warrants to purchase 6,984 shares of Common Stock;
- (g) 2,456 shares of its Common Stock to Lawrence Wein in exchange for warrants to purchase 3,492 shares of Common Stock;
- (h) 2,456 shares of its Common Stock to Steven Heineman in exchange for warrants to purchase 3,492 shares of Common Stock;
- (i) 8,572 shares of its Common Stock to Herb Karlitz in exchange for warrants to purchase 11,640 shares of Common Stock;
- (j) 9,824 shares of its Common Stock to Charles P. Stevenson, Jr. in exchange for warrants to purchase 13,968 shares of Common Stock;
- (k) 4,912 shares of its Common Stock to Albert Kalimian in exchange for warrants to purchase 6,984 shares of Common Stock;
- (1) 30,375 shares of its Common Stock to Navigator Fund, L.P. in exchange for warrants to purchase 42,882 shares of Common Stock;
- (m) 4,254 shares of its Common Stock to Navigator Global Fund in exchange for warrants to purchase 6,006 shares of Common Stock;
- (n) 3,625 shares of its Common Stock to Robert Graifman in exchange for warrants to purchase 4,656 shares of Common Stock;
- (o) 7,278 shares of its Common Stock to MBF Capital Corp. in exchange for warrants to purchase 9,312 shares of Common Stock;
- (p) 36,441 shares of its Common Stock to Bentley One, Ltd. in exchange for warrants to purchase 46,560 shares of Common Stock;
- (q) 6,897 shares of its Common Stock to Barington Capital Group, L.P. in exchange for options to purchase 15,520 shares of Common Stock;
- (r) 9,560 shares of its Common Stock to GKN Securities Corp. in exchange for options to purchase 21,511 shares of Common Stock;
- (s) 3,869 shares of its Common Stock to David M. Nussbaum in exchange for options to purchase 8,707 shares of Common Stock;
- (t) 3,869 shares of its Common Stock to Robert Gladstone in exchange for options to purchase 8,707 shares of Common Stock;
- (u) 3,869 shares of its Common Stock to Roger Gladstone in exchange for options to purchase 8,707 shares of Common Stock;
- (v) 593 shares of its Common Stock to Deborah L. Schondorf in exchange for options to purchase 1,335 shares of Common Stock;

- (w) 104 shares of its Common Stock to Neil Betoff in exchange for options to purchase 233 shares of Common Stock;
- (x) 455 shares of its Common Stock to Richard Buonocore in exchange for options to purchase 1,024 shares of Common Stock;

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- (y) 166 shares of its Common Stock to Brian K. Coventry in exchange for options to purchase 372 shares of Common Stock; and
- (z) 276 shares of its Common Stock to Andrew G. Lazarus in exchange for options to purchase 621 shares of Common Stock.
- (33) On October 1, 1998, the Company issued 10,000 shares of Common Stock to CMH in connection with advisory services to be rendered to the Company.
- (34) On October 19, 1998, the Company issued 1,167 shares of Common Stock to High Tech Ventures in consideration for services rendered.
- (35) On October 19, 1998, the Company issued 2,053 shares of Common Stock to Opre Systems, Inc. in consideration for services rendered.
- (36) On October 20, 1998, the Company entered into an agreement, effective upon consummation of this offering, with certain of its holders of outstanding promissory notes (the "Notes"), in the principal amount plus accrued interest of \$3,204,888, pursuant to which the Company will issue 562,836 shares of Series C Convertible Preferred Stock (the "Preferred Stock") in exchange for cancellation of promissory notes in the principal amount plus accrued interest of \$2,954,888 (subject to adjustment in the event the Underwriter's over-allotment option is exercised in whole or in part), as follows:
  - (a) 382,696 shares of Preferred Stock to Applewood Associates, L.P. in exchange for Notes and accrued interest of \$2,009,156;
  - (b) 32,675 shares of Preferred Stock to CMH Capital Management Corp. in exchange for Notes and accrued interest of \$171,541;
  - (c) 7,846 shares of Preferred Stock to Corey M. Horowitz in exchange for Notes and accrued interest of \$41,193;
  - (d) 16,586 shares of Preferred Stock to Raptur Management Co. in exchange for Notes and accrued interest of \$87,075;
  - (e) 8,293 shares of Preferred Stock to Douglas Lipton in exchange for Notes and accrued interest of \$43,538;
  - (f) 4,146 shares of Preferred Stock to Lawrence Wein in exchange for Notes and accrued interest of \$21,769;

(g) 4,146 shares of Preferred Stock to Steven Heineman in exchange for Notes and accrued interest of \$21,769;
(h) 12,260 shares of Preferred Stock to Herb Karlitz in exchange for Notes and accrued interest of \$64,364;
(i) 16,586 shares of Preferred Stock to Charles P. Stevenson, Jr. in exchange for Notes and accrued interest of \$87,075;
(j) 8,293 shares of Preferred Stock to Albert Kalimian in exchange for Notes and accrued interest of \$43,538;
(k) 50,432 shares of Preferred Stock to Navigator Fund, L.P. in exchange for Notes and accrued interest of \$264,766;
(1) 7,064 shares of Preferred Stock to Navigator Global Fund in exchange for Notes and accrued interest of \$37,085;
(m) 3,967 shares of Preferred Stock to Robert Graifman in exchange for Notes and accrued interest of \$20,826; and
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(n) 7,846 shares of Preferred Stock to MBF Capital Corp. in exchange for Notes and accrued interest of \$41,193.
ITEM 27. EXHIBITS
The following is a list of all Exhibits filed as part of this Registration Statement.
<table> <caption> EXHIBIT NUMBER EXHIBIT</caption></table>
<c> &lt;\$&gt;</c>
1.1 Form of Underwriting Agreement***
1.2 Form of Underwriter's Warrant***
2.1 Merger Agreement, dated September 11, 1998, between the Company and CommHome Systems Corporation*
3.1 Certificate of Incorporation of the Company, as amended (includes Form of Certificate of Designation of Series C Preferred Stock)***
3.2 By-laws of the Company, as amended*
4.1 Form of Common Stock Certificate*
4.2 Company's Stock Option Plan, as amended***
5.1 Oninion of Bizar Martin & Taub LLP*

- 10.1 Employment Agreement, dated May 18, 1998, between the Company and Avi A. Fogel, and amendment, dated May 30, 1998\*
- 10.2 Employment Agreement, dated May 18, 1998, between the Company and Robert P. Olsen\*
- 10.3 Employment Agreement, dated May 19, 1998, between the Company and Murray P. Fish\*
- 10.4 Employment Agreement, dated June 30, 1998, between the Company and William Hancock\*
- 10.5 Employment Agreement, dated April 4, 1994, between the Company and Robert Russo, and amendments, dated February 16, 1996 and September 10, 1998\*
- 10.6 Waiver, dated June 30, 1998, of salary increases by William Hancock and Robert Russo\*
- 10.7 Lease and Service Agreement, dated June 5, 1998, between the Company and Alliance Wellesley L.P.\*
- 10.8 Lease, dated June 29, 1994, between the Company and Greenview Limited Partnership\*
- 10.9 Agreement, dated August 30, 1996, between the Company and CMH Capital Management Corp. ("CMH"), with respect to advisory services, and amendments, dated January 15, 1997 and January 30, 1997\*
- 10.10 Agreement, dated May 14, 1998, between the Company, CMH and Applewood Associates, L.P. with respect to advisory services\*
- 10.11 Master Software License Agreement, dated November 10, 1997, between the Company and Electronic Data System Corporation, and amendment, dated May 29, 1998\*\*
- 10.12 Software Distribution Agreement, dated June 5, 1997, between the Company and Trusted Information Systems, Inc.\*\*
- 10.13 Software Distribution Agreement, dated September 26, 1997, between the Company and Trusted Information Systems, Inc.\*\*
- 10.14 Reseller Agreement, dated April 17, 1998, between the Company and Aventail Software Corporation \*\* </TABLE>

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<TABLE>
<CAPTION>
EXHIBIT
NUMBER EXHIBIT

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<C> <S>

- 10.15 Agreement, dated January 31, 1997, among the Company, Robert Russo and William Hancock, in which Messrs. Russo and Hancock surrendered shares of Common Stock\*
- 10.16 Agreement, dated September 26, 1997, between the Company, Robert Russo, William Hancock, and Kenneth Conquest, in which Messrs. Russo, Hancock, and Conquest surrendered shares of Common Stock\*
- 10.17 Agreement, dated May 14, 1998, among the Company, Robert Russo and William Hancock, in which Messrs. Russo and Hancock surrendered shares of Common Stock\*
- 10.18 Agreement, dated May 14, 1998, between the Company and CMH, in connection with the issuance of shares for advisory fees\*
- 10.19 Exchange Agreement, dated July 8, 1998, between the Company and certain of its holders of outstanding warrants and options\*
- 10.20 Employment Agreement, dated July 31, 1998, between the Company and Joseph A. Donohue\*
- 10.21 Employment Agreement, dated August 24, 1998, between the Company and Joseph D. Harris\*
- 10.22 Agreement, dated October 1, 1998, between the Company and CMH, with respect to advisory services
- 10.23 Agreement, dated October 20, 1998, between the Company and certain of its holders of promissory notes
- 21.1 List of Subsidiaries of the Company\*
- 23.1 Consent of Richard A. Eisner & Company, LLP
- 23.2 Consent of Bizar Martin & Taub, LLP (included in Exhibit 5.1)\*

24.1 Power of Attorney (see signature page)\*

27.1 Financial Data Schedule\* </TABLE>

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- \* Previously filed.
- \*\* Previously filed and confidentiality treatment has been requested for certain provisions.
- \*\*\* Amendment to previously filed document filed herewith.

#### ITEM 28. UNDERTAKINGS

The Registrant will provide to the Underwriter specified in the Underwriting Agreement certificates in such denominations and registered in such names as required by the Underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 (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 Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim from 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 of 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.

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For purpose of determining any liability under the Securities of 1933, each post-effective amendment that contains a Form of Prospectus 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.

For purposes of determining any liability under the Securities Act, the information omitted from the Form of Prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in the Form of Prospectus filed by Company pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

II-11 SIGNATURES

In accordance with 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 of filing on Form SB-2 and authorized this registration statement to be signed on its behalf by the undersigned, in the Township of Wellesley, Commonwealth of Massachusetts, on the 22nd day of October, 1998.

NETWORK-1 SECURITY SOLUTIONS, INC.

By: /s/ AVI A. FOGEL

Avi A. Fogel,
CHIEF EXECUTIVE OFFICER

# POWER OF ATTORNEY

NAME

In accordance with the requirements of the Securities Act of 1933, this registration statement was signed by the following persons in the capacities and on the dates indicated:

DATE

TITLE

/s/ AVI A. FOGEL	lent, Chief Executive Officer and Director	0 + 1 - 22 1000	
Avi A. Fogel	- (principal executive officer)	October 22, 1998	
*			
William H. Hancock	- Chief Technology Office and Director	r October 22, 1998	
* (pri	Financial Officer ncipal financial - officer and principal	October 22, 1998	
	accounting officer)	22, 1330	
*			
Robert Russo	- Vice President of Busines Development	ss October 22, 1998	
/s/ COREY M. HORO	WITZ - Chairman of the Board of	f October 22, 1998	
Corey M. Horowitz		30,000, 22, 1990	
/s/ MARCUS RANU		tober 22, 1998	
Marcus Ranum	- Director Gen	10001 22, 1990	
Avi A. Fogel, AS ATTORNEY-IN II-	12		
EXH	IBIT INDEX		
<table> <caption></caption></table>			
EXHIBIT NUMBER EXHIBIT			PAGE
<c> <s></s></c>		<c></c>	
1.1 Form of Underw	riting Agreement***		
1.2 Form of Underw	vriter's Warrant***		
	ent, dated September 11, 19	998, between the Company an	d CommHome Systems
3.1 Certificate of Inc Designation of Se	corporation of the Company eries C Preferred Stock)***	y, as amended (includes Form	of Certificate of
3.2 By-laws of the C	Company, as amended*		
4.1 Form of Commo	on Stock Certificate*		
4.2 Company's Stoc	k Option Plan, as amended	***	
5.1 Opinion of Biza	r Martin & Taub, LLP*		
10.1 Employment A	graamant datad May 19 10	008 hetween the Company an	d Avi A Fogel and amandm

dated May 30, 1998*
10.2 Employment Agreement, dated May 18, 1998, between the Company and Robert P. Olsen*
10.3 Employment Agreement, dated May 19, 1998, between the Company and Murray P. Fish*
10.4 Employment Agreement, dated June 30, 1998, between the Company and William Hancock*
10.5 Employment Agreement, dated April 4, 1994, between the Company and Robert Russo, and amendments, dated February 16, 1996 and September 10, 1998*
10.6 Waiver, dated June 30, 1998, of salary increases by William Hancock and Robert Russo*
10.7 Lease and Service Agreement, dated June 5, 1998, between the Company and Alliance Wellesley L.P.*
10.8 Lease, dated June 29, 1994, between the Company and Greenview Limited Partnership*
10.9 Agreement, dated August 30, 1996, between the Company and CMH Capital Management Corp. ("CMH") with respect to advisory services, and amendments, dated January 15, 1997 and January 30, 1997.*
10.10 Agreement, dated May 14, 1998, between the Company, CMH and Applewood Associates, L.P. with respect to advisory services*
10.11 Master Software License Agreement, dated November 10, 1997, between the Company and Electronic Data Systems Corporation, and amendment, dated May 29, 1998**
10.12 Software Distribution Agreement, dated June 5, 1997, between the Company and Trusted Information Systems, Inc.**
10.13 Software Distribution Agreement, dated September 26, 1997, between the Company and Trusted Information Systems, Inc.**
10.14 Reseller Agreement, dated April 17, 1998, between the Company and Aventail Software Corporation**
10.15 Agreement, dated January 31, 1997, among the Company, Robert Russo and William Hancock, in which Russo and Hancock surrendered shares of Common Stock*
10.16 Agreement, dated September 26, 1997, between the Company, Robert Russo, William Hancock, and Kenneth Conquest, in which Messrs. Russo, Hancock, and Conquest surrendered shares of Common Stock*
<table> <caption></caption></table>
EXHIBIT  NUMBER EXHIBIT  PAGE
<c> <s> <c> 10.17 Agreement, dated May 14, 1998, among the Company, Robert Russo and William Hancock, in which Messrs. Russo and Hancock surrendered shares of Common Stock*</c></s></c>
10.18 Agreement, dated May 14, 1998, between the Company and CMH, in connection with the issuance of shares for advisory fees*
10.19 Exchange Agreement, dated July 8, 1998, between the Company and certain of its holders of outstanding warrants and options*
10.20 Employment Agreement, dated July 31, 1998, between the Company and Joseph A. Donohue*
10.21 Employment Agreement, dated August 24, 1998, between the Company and Joseph D. Harris*
10.22 Agreement, dated October 1, 1998, between the Company and CMH, with respect to advisory services
10.23 Agreement, dated October 20, 1998, between the Company and certain of its holders of promissory notes
21.1 List of Subsidiaries of the Company*

23.1	Consent of Richard A. Eisner & Company, LLP			
23.2	Consent of Bizar Martin & Taub, LLP (included in Exhibit 5.1)*			
24.1	Power of Attorney (see signature page)*			
27.1 <td>Financial Data Schedule*E&gt;</td>	Financial Data Schedule*E>			
* Previ	ously filed.			
** Previously filed and confidentiality treatment has been requested for certain provisions.				

\*\*\* Amendment to previously filed document filed herewith.

Network-1 Security Solutions, Inc.

1,875,000 Shares of Common Stock

(Par Value \$.01 Per Share)

#### UNDERWRITING AGREEMENT

Whale Securities Co., L.P. 650 Fifth Avenue New York, New York 10019 New York, New York \_\_\_\_\_, 1998

#### Ladies and Gentlemen:

Network-1 Security Solutions, Inc, a Delaware corporation (the "Company"), proposes to issue and sell to Whale Securities Co., L.P. (the "Underwriter") 1,700,000 shares of common stock, par value \$.01 per share (the "Offered Shares"), which Offered Shares are presently authorized but unissued shares of the common stock, par value \$.01 per share (individually, a "Common Share" and collectively the "Common Shares"), of the Company. In addition, the Underwriter, in order to cover over-allotments in the sale of the Offered Shares, may purchase up to an aggregate of 255,000 Common Shares (the "Optional Shares"; the Offered Shares and the Optional Shares are hereinafter sometimes collectively referred to as the "Shares"). The Shares are described in the Registration Statement, as defined below. The Company also proposes to issue and sell to the Underwriter for its own account and the accounts of its designees, warrants to purchase an aggregate of 170,000 Common Shares at an exercise price of \$9.30 per share (the "Underwriter's Warrants"), which sale will be consummated in accordance with the terms and conditions of the form of Underwriter's Warrant filed as an exhibit to the Registration Statement (as hereinafter defined).

The Company hereby confirms its agreement with the Underwriter as follows:

1. Purchase and Sale of Offered Shares. On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company hereby agrees to sell the Offered Shares to the Underwriter, and the Underwriter agrees to purchase the Offered Shares from the Company, at a purchase price of \$5.40 per share. The Underwriter plans to offer the Shares to the public at a public offering price of \$6.00 per Offered Share.

### 2. Payment and Delivery.

- (a) Payment for the Offered Shares will be made to the Company by wire transfer or certified or official bank check or checks payable to its order in New York Clearing House funds, at the offices of the Underwriter, 650 Fifth Avenue, New York, New York 10019, against delivery of the Offered Shares to the Underwriter. Such payment and delivery will be made at , New York City time, on the third business day following the Effective Date (the fourth business day following the Effective Date in the event that trading of the Offered Shares commences on the day following the Effective Date), the date and time of such payment and delivery being herein called the "Closing Date." The certificates representing the Offered Shares to be delivered will be in such denominations and registered in such names as the Underwriter may request not less than two full business days prior to the Closing Date, and will be made available to the Underwriter for inspection, checking and packaging at the office of the Company's transfer agent or correspondent in New York City, American Stock Transfer & Trust Company, 40 Wall Street, New York, New York 10005, not less than one full business day prior to the Closing Date.
- (b) On the Closing Date, the Company will sell the Underwriter's Warrants to the Underwriter or to the designees of the Underwriter limited to officers and partners of the Underwriter, members of the selling group and/or their officers or partners (collectively, the

"Underwriter's Designees"). The Underwriter's Warrants will be in the form of, and in accordance with, the provisions of the Underwriter's Warrant attached as an exhibit to the Registration Statement. The aggregate purchase price for the Underwriter's Warrants is \$100.00. The Underwriter's Warrants will be restricted from sale, transfer, assignment or hypothecation for a period of one year from the Effective Date, except to the Underwriter's Designees. Payment for the Underwriter's Warrants will be made to the Company by check or checks payable to its order on the Closing Date against delivery of the certificates representing the Underwriter's Warrants. The certificates representing the Underwriter's Warrants will be in such denominations and such names as the Underwriter may request prior to the Closing Date.

#### 3. Option to Purchase Optional Shares.

(a) For the purposes of covering any over- allotments in connection with the distribution and sale of the Offered Shares as contemplated by the Prospectus, the Underwriter is hereby granted an option to purchase all or any part of the Optional Shares from the Company. The purchase price to be paid for the Optional Shares will be the same price per Optional Share

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as the price per Offered Share set forth in Section 1 hereof. The option granted hereby may be exercised by the Underwriter as to all or any part of the Optional Shares at any time within 45 days after the Effective Date. The Underwriter will not be under any obligation to purchase any Optional Shares prior to the exercise of such option.

- (b) The option granted hereby may be exercised by the Underwriter by giving oral notice to the Company, which must be confirmed by a letter, telex or telegraph setting forth the number of Optional Shares to be purchased, the date and time for delivery of and payment for the Optional Shares to be purchased and stating that the Optional Shares referred to therein are to be used for the purpose of covering over-allotments in connection with the distribution and sale of the Offered Shares. If such notice is given prior to the Closing Date, the date set forth therein for such delivery and payment will not be earlier than either two full business days thereafter or the Closing Date, whichever occurs later. If such notice is given on or after the Closing Date, the date set forth therein for such delivery and payment will not be earlier than two full business days thereafter. In either event, the date so set forth will not be more than 15 full business days after the date of such notice. The date and time set forth in such notice is herein called the "Option Closing Date." Upon exercise of such option, the Company will become obligated to convey to the Underwriter, and, subject to the terms and conditions set forth in Section 3(d) hereof, the Underwriter will become obligated to purchase, the number of Optional Shares specified in such notice.
- (c) Payment for any Optional Shares purchased will be made to the Company by wire transfer or certified or official bank check or checks payable to its order in New York Clearing House funds, at the office of the Underwriter, against delivery of the Optional Shares purchased to the Underwriter. The certificates representing the Optional Shares to be delivered will be in such denominations and registered in such names as the Underwriter requests not less than two full business days prior to the Option Closing Date, and will be made available to the Underwriter for inspection, checking and packaging at the aforesaid office of the Company's transfer agent or correspondent not less than one full business day prior to the Option Closing Date.
- (d) The obligation of the Underwriter to purchase and pay for any of the Optional Shares is subject to the accuracy and completeness (as of the date hereof and as of the Option Closing Date) of and compliance in all material respects with the representations and warranties of the Company herein, to the accuracy and completeness of the statements of the Company or its

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officers made in any certificate or other document to be delivered by the Company pursuant to this Agreement, to the performance in all material respects by the Company of its obligations hereunder, to the satisfaction by the Company of the conditions, as of the date hereof and as of the Option Closing Date, set forth in Section 3(b) hereof, and to the delivery to the Underwriter of

opinions, certificates and letters dated the Option Closing Date substantially similar in scope to those specified in Section 5, 6(b), (c), (d), (e) and (f) hereof, but with each reference to "Offered Shares" and "Closing Date" to be, respectively, to the Optional Shares and the Option Closing Date.

- 4. Representations and Warranties of the Company. The Company represents and warrants to, and agrees with, the Underwriter that:
- (a) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware, with full power and authority, corporate and other, to own or lease and operate, as the case may be, its properties, whether tangible or intangible, and to conduct its business as described in the Registration Statement and to execute, deliver and perform this Agreement and the Underwriter's Warrant Agreement and to consummate the transactions contemplated hereby and thereby. The Company has no subsidiaries other than Network- 1 Acquisition Corp. (the "Subsidiary"). The Subsidiary is a corporation duly organized, validly existing and in good standing under the laws of the state of Delaware, with full power and authority, corporate and other, to own or lease, as the case may be, and operate its properties, whether tangible or intangible, and to conduct its business as described in the Registration Statement. Each of the Company and the Subsidiary is duly qualified to do business as a foreign corporation and is in good standing in all jurisdictions wherein such qualification is necessary, except in such jurisdictions where the failure so to qualify or be in good standing would not have a material adverse effect on the financial condition, results of operations, business or properties of the Company and the Subsidiary taken as a whole.

The Company owns 100% of the issued and outstanding shares of capital stock of the Subsidiary, and such shares are free and clear of any security interests, liens, encumbrances, claims and charges, and all of such shares have been duly authorized and validly issued and are fully paid and nonassessable. There are no options or warrants for the purchase of, or other rights to purchase, or outstanding securities convertible into or exchangeable for, any capital stock or other securities of the Subsidiary.

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- (b) This Agreement has been duly executed and delivered by the Company and constitutes the valid and binding obligation of the Company, and the Underwriter's Warrant Agreement, when executed and delivered by the Company on the Closing Date, will be the valid and binding obligations of the Company, enforceable against the Company in accordance with their respective terms. The execution, delivery and performance of this Agreement and the Underwriter's Warrant Agreement by the Company, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms of this Agreement and the Underwriter's Warrant Agreement have been duly authorized by all necessary corporate action and do not and will not, with or without the giving of notice or the lapse of time, or both, (i) result in any violation of the Certificate of Incorporation or By-Laws, each as amended, of the Company or the Subsidiary; (ii) result in a breach of or conflict with any of the terms or provisions of, or constitute a default under, or result in the modification or termination of, or result in the creation or imposition of any lien, security interest, charge or encumbrance upon any of the properties or assets of the Company or the Subsidiary pursuant to any indenture, mortgage, note, contract, commitment or other agreement or instrument to which the Company or the Subsidiary is a party or by which the Company or the Subsidiary or any of their properties or assets is or may be bound or affected; (iii) violate any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or the Subsidiary or any of their properties or business; or (iv) have any effect on any permit, certification, registration, approval, consent, order, license, franchise or other authorization (collectively, the "Permits") necessary for the Company or the Subsidiary to own or lease and operate their properties and to conduct their business or the ability of the Company or the Subsidiary to make use thereof.
- (c) No Permits of any court or governmental agency or body, other than under the Securities Act of 1933, as amended (the "Act"), the Regulations (as hereinafter defined) and applicable state securities or Blue Sky laws, are required for (i) the valid authorization, issuance, sale and delivery of the Shares to the Underwriter, and (ii) the consummation by the Company of the

transactions contemplated by this Agreement or the Underwriter's Warrant Agreement.

(d) The conditions for use of a registration statement on Form SB-2 set forth in the General Instructions to Form SB-2 have been satisfied with respect to the Company, the transactions contemplated herein and in the Registration Statement. The Company has prepared in conformity with the

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requirements of the Act and the rules and regulations (the "Regulations") of the Securities and Exchange Commission (the "Commission") and filed with the Commission a registration statement (File No. 333-59617) on Form SB-2 and has filed one or more amendments thereto, covering the registration of the Shares under the Act, including the related preliminary prospectus or preliminary prospectuses (each thereof being herein called a "Preliminary Prospectus") and a proposed final prospectus. Each Preliminary Prospectus was endorsed with the legend required by Item 501(a)(5) of Regulation S-B of the Regulations and, if applicable, Rule 430A of the Regulations. Such registration statement, including any documents incorporated by reference therein and all financial schedules and exhibits thereto, as amended at the time it becomes effective, and the final prospectus included therein are herein, respectively, called the "Registration Statement" and the "Prospectus," except that, (i) if the prospectus filed by the Company pursuant to Rule 424(b) of the Regulations differs from the Prospectus, the term "Prospectus" will also include the prospectus filed pursuant to Rule 424(b), and (ii) if the Registration Statement is amended or such Prospectus is supplemented after the date the Registration Statement is declared effective by the Commission (the "Effective Date") and prior to the Option Closing Date, the terms "Registration Statement" and "Prospectus" shall include the Registration Statement as amended or supplemented.

- (e) Neither the Commission nor, to the best of the Company's knowledge, any state regulatory authority has issued any order preventing or suspending the use of any Preliminary Prospectus or has instituted or, to the best of the Company's knowledge, threatened to institute any proceedings with respect to such an order.
- (f) The Registration Statement when it becomes effective, the Prospectus (and any amendment or supplement thereto) when it is filed with the Commission pursuant to Rule 424(b), and both documents as of the Closing Date and the Option Closing Date, referred to below, will contain all statements which are required to be stated therein in accordance with the Act and the Regulations and will in all material respects conform to the requirements of the Act and the Regulations, and neither the Registration Statement nor the Prospectus, nor any amendment or supplement thereto, on such dates, will contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, except that this representation and warranty does not apply to statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company in connection with the Registration

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Statement or Prospectus or any amendment or supplement thereto by the Underwriter expressly for use therein.

(g) The Company had at the date or dates indicated in the Prospectus a duly authorized and outstanding capitalization as set forth in the Registration Statement and the Prospectus. Based on the assumptions stated in the Registration Statement and the Prospectus, the Company will have on the Closing Date the adjusted stock capitalization set forth therein. Except as set forth in the Registration Statement or the Prospectus, on the Effective Date and on the Closing Date, there will be no options to purchase, warrants or other rights to subscribe for, or any securities or obligations convertible into, or any contracts or commitments to issue or sell shares of the Company's capital stock or any such warrants, convertible securities or obligations. Except as set forth in the Prospectus, no holders of any of the Company's securities has any rights, "demand," "piggyback" or otherwise, to have such securities registered under the Act.

- (h) The descriptions in the Registration Statement and the Prospectus of contracts and other documents are accurate and present fairly the information required to be disclosed, and there are no contracts or other documents required to be described in the Registration Statement or the Prospectus or to be filed as exhibits to the Registration Statement under the Act or the Regulations which have not been so described or filed as required.
- (i) Richard A. Eisner & Company, LLP, the accountants who have certified certain of the financial statements filed and to be filed with the Commission as part of the Registration Statement and the Prospectus, are independent public accountants within the meaning of the Act and Regulations. The financial statements and schedules and the notes thereto filed as part of the Registration Statement and included in the Prospectus are complete, correct and present fairly the financial position of the Company as of the dates thereof, and the results of operations and changes in financial position of the Company for the periods indicated therein, all in conformity with generally accepted accounting principles applied on a consistent basis throughout the periods involved except as otherwise stated in the Registration Statement and the Prospectus. The selected financial data set forth in the Registration Statement and have been compiled on a basis consistent with that of the audited and unaudited financial statements included in the Registration Statement and the Prospectus.

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- (i) The Company and the Subsidiary each has filed with the appropriate federal, state and local governmental agencies, and all appropriate foreign countries and political subdivisions thereof, all tax returns, including franchise tax returns, which are required to be filed or has duly obtained extensions of time for the filing thereof and has paid all taxes shown on such returns and all assessments received by it to the extent that the same have become due; and the provisions for income taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid foreign and domestic taxes, whether or not disputed, and for all periods to and including the dates of such financial statements. Except as disclosed in writing to the Underwriter, neither the Company nor the Subsidiary has executed or filed with any taxing authority, foreign or domestic, any agreement extending the period for assessment or collection of any income taxes and is not a party to any pending action or proceeding by any foreign or domestic governmental agency for assessment or collection of taxes; and no claims for assessment or collection of taxes have been asserted against the Company or the Subsidiary.
- (k) The outstanding Common Shares, the outstanding shares of Series B Preferred Stock, par value \$.01 per share of the Company (the "Series B Preferred Shares") and outstanding options and warrants to purchase Common Shares have been duly authorized and validly issued. The outstanding Common Shares and Series B Preferred Shares are fully paid and nonassessable. The Company has reserved an aggregate of [562,836] shares of Series C Preferred Stock, par value \$.01 per share of the Company (the "Series C Preferred Shares") for issuance upon the conversion of [\$2,954,888] principal amount of outstanding indebtedness, plus interest, on the Closing Date. Upon issuance, the Series C Preferred Shares will be duly authorized, validly issued, fully paid and nonassessable. The outstanding options and warrants to purchase Common Shares constitute the valid and binding obligations of the Company, enforceable in accordance with their terms. None of the outstanding Common Shares or Series B Preferred Shares or options or warrants to purchase Common Shares has been issued in violation of the preemptive rights of any shareholder of the Company. The issuance of the Series C Preferred Shares on the Closing Date will not violate the preemptive rights of any shareholder of the Company. None of the holders of the outstanding Common Shares or Series B Preferred Shares is subject to personal liability solely by reason of being such a holder. Upon issuance of the Series C Preferred Shares, none of the holders of such shares will be subject to personal liability solely by reason of being such a holder. Upon conversion of the outstanding Series B Preferred Shares into Common Shares on the

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Closing Date, such shares will be duly authorized, validly issued, fully paid and non-assessable, and none of the holders thereof will be subject to personal liability solely by reason of being such a holder. The Company has reserved sufficient number of Common Shares for future issuance upon the conversion of the Series C Preferred Shares. Upon conversion of the Series C Preferred Shares into Common Shares, such shares will be duly authorized, validly issued, fully paid and non-assessable, and none of the holders thereof will be subject to personal liability solely by reason of being such a holder. The offers and sales of the outstanding Common Shares and Series B Preferred Shares and outstanding options and warrants to purchase Common Shares were at all relevant times, and the offer and sale of the Series C Preferred Shares on the Closing Date will be. either registered under the Act and the applicable state securities or Blue Sky laws or exempt from such registration requirements. The authorized Common Shares, Series B Preferred Shares and Series C Preferred Shares and outstanding options and warrants to purchase Common Shares conform to the descriptions thereof contained in the Registration Statement and Prospectus. Except as set forth in the Registration Statement and the Prospectus, on the Effective Date and the Closing Date, there will be no outstanding options or warrants for the purchase of, or other outstanding rights to purchase, Common Shares or securities convertible into Common Shares.

- (l) No securities of the Company have been sold by the Company or by or on behalf of, or for the benefit of, any person or persons controlling, controlled by, or under common control with the Company within the three years prior to the date hereof, except as disclosed in the Registration Statement.
- (m) The issuance and sale of the Shares have been duly authorized and, when the Shares have been issued and duly delivered against payment therefor as contemplated by this Agreement, the Shares will be validly issued, fully paid and nonassessable, and the holders thereof will not be subject to personal liability solely by reason of being such holders. The Shares will not be subject to preemptive rights of any shareholder of the Company.
- (n) The issuance and sale of the Common Shares issuable upon exercise of the Underwriter's Warrants have been duly authorized and, when such Common Shares have been duly delivered against payment therefor, as contemplated by the Underwriter's Warrant Agreement, such Common Shares will be validly issued, fully paid and nonassessable. Holders of Common Shares issuable upon the exercise of the Underwriter's Warrants will not be subject to personal liability solely by reason of being such holders. Neither the Underwriter's Warrants nor the

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Common Shares issuable upon exercise thereof will be subject to preemptive rights of any shareholder of the Company. The Common Shares issuable upon exercise of the Underwriter's Warrants have been duly reserved for issuance upon exercise of the Underwriter's Warrants in accordance with the provisions of the Underwriter's Warrant Agreement. The Underwriter's Warrants conform to the descriptions thereof contained in the Registration Statement and the Prospectus.

- (o) Neither the Company nor the Subsidiary is in violation of, or in default under, (i) any term or provision of its Certificate of Incorporation or By-Laws, each as amended; (ii) any material term or provision or any financial covenants of any indenture, mortgage, contract, commitment or other agreement or instrument to which it is a party or by which it or any of its property or business is or may be bound or affected; or (iii) any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or the Subsidiary or any of the Company's or the Subsidiary's properties or business. Each of the Company and the Subsidiary owns, possesses or has obtained all governmental and other (including those obtainable from third parties) Permits, necessary to own or lease, as the case may be, and to operate its properties, whether tangible or intangible, and to conduct the business and operations of the Company and the Subsidiary as presently conducted, and all such Permits are outstanding and in good standing, and there are no proceedings pending or, to the best of the Company's knowledge, threatened, or any basis therefor, seeking to cancel, terminate or limit such Permits.
- (p) Except as set forth in the Prospectus, there are no claims, actions, suits, proceedings, arbitrations, investigations or inquiries before

any governmental agency, court or tribunal, domestic or foreign, or before any private arbitration tribunal, pending, or, to the best of the Company's knowledge, threatened against the Company or the Subsidiary or involving the Company's or the Subsidiary's properties or business which, if determined adversely to the Company or the Subsidiary, would, individually or in the aggregate, result in any material adverse change in the financial position, shareholders' equity, results of operations, properties, business, management or affairs or business prospects of the Company or the Subsidiary or which question the validity of the capital stock of the Company or this Agreement or of any action taken or to be taken by the Company pursuant to, or in connection with, this Agreement; nor, to the best of the Company's knowledge, is there any basis for any such claim, action, suit, proceeding, arbitration, investigation or inquiry. There are no outstanding orders, judgments or decrees of any court,

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governmental agency or other tribunal naming the Company or the Subsidiary and enjoining the Company or the Subsidiary from taking, or requiring the Company or the Subsidiary to take, any action, or to which the Company or the Subsidiary or the Company's or the Subsidiary's properties or business is bound or subject.

- (q) Neither the Company nor any of its affiliates has incurred any liability for any finder's fees or similar payments in connection with the transactions herein contemplated.
- (r) Each of the Company and the Subsidiary owns or possesses adequate and enforceable rights to use all patents, patent applications, trademarks, service marks, copyrights, rights, trade secrets, confidential information, processes and formulations used or proposed to be used in the conduct of its business as described in the Prospectus (collectively the "Intangibles"); to the best of the Company's knowledge, neither the Company nor the Subsidiary has infringed nor is infringing upon the rights of others with respect to the Intangibles; and neither the Company nor the Subsidiary has received any notice of conflict with the asserted rights of others with respect to the Intangibles which could, singly or in the aggregate, materially adversely affect its business as presently conducted or the prospects, financial condition or results of operations of the Company or the Subsidiary, and the Company knows of no basis therefor; and, to the best of the Company's knowledge, no others have infringed upon the Intangibles of the Company or the Subsidiary.
- (s) Since the respective dates as of which information is given in the Registration Statement and the Prospectus and the Company's latest financial statements, except as set forth in or contemplated by the Registration Statement or the Prospectus, neither the Company nor the Subsidiary has incurred any material liability or obligation, direct or contingent, or entered into any material transaction, whether or not incurred in the ordinary course of business, or has sustained any material loss or interference with its business from fire, storm, explosion, flood or other casualty, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree; and since the respective dates as of which information is given in the Registration Statement and the Prospectus, there have not been, and prior to the Closing Date referred to below there will not be, any changes in the capital stock or any material increases in the long-term debt of the Company or the Subsidiary or any material adverse change in or affecting the general affairs, management, financial condition, shareholders' equity, results of operations or prospects of the

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Company or the Subsidiary, otherwise than as set forth or contemplated in the Prospectus.

(t) Neither the Company nor the Subsidiary owns any real property. Each of the Company and the Subsidiary has good title to all personal property (tangible and intangible) owned by it, free and clear of all security interests, charges, mortgages, liens, encumbrances and defects, except such as are described in the Registration Statement and Prospectus or such as do not materially affect the value or transferability of such property and do not interfere with the use of such property made, or proposed to be made, by the Company or the Subsidiary. The leases, licenses or other contracts or

instruments under which the Company or the Subsidiary leases, holds or is entitled to use any property, real or personal, are valid, subsisting and enforceable only with such exceptions as are not material and do not interfere with the use of such property made, or proposed to be made, by the Company or the Subsidiary, and all rentals, royalties or other payments accruing thereunder which became due prior to the date of this Agreement have been duly paid, and neither the Company nor the Subsidiary, nor, to the best of the Company's knowledge, any other party is in default thereunder and, to the best of the Company's knowledge, no event has occurred which, with the passage of time or the giving of notice, or both, would constitute a default thereunder. Neither the Company nor the Subsidiary has received notice of any violation of any applicable law, ordinance, regulation, order or requirement relating to its owned or leased properties. Each of the Company and the Subsidiary has adequately insured its properties against loss or damage by fire or other casualty and maintains, in adequate amounts, such other insurance as is usually maintained by companies engaged in the same or similar business located in its geographic area.

(u) Each contract or other instrument (however characterized or described) to which the Company or the Subsidiary is a party or by which their properties or business is or may be bound or affected and to which reference is made in the Prospectus has been duly and validly executed, is in full force and effect in all material respects and is enforceable against the parties thereto in accordance with its terms, and none of such contracts or instruments has been assigned by the Company or the Subsidiary, and neither the Company nor the Subsidiary, nor, to the best of the Company's knowledge, any other party, is in default thereunder and, to the best of the Company's knowledge, no event has occurred which, with the lapse of time or the giving of notice, or both, would constitute a default thereunder.

None of the material provisions of such contracts or instruments violates any existing applicable law, rule,

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regulation, judgment, order or decree of any governmental agency or court having jurisdiction over the Company or the Subsidiary or any of their assets or business

- (v) The employment, consulting and confidentiality agreements between the Company or the Subsidiary and their respective officers, employees and consultants, described in the Registration Statement, are binding and enforceable obligations upon the respective parties thereto in accordance with their respective terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, moratorium or other similar laws or arrangements affecting creditors' rights generally and subject to principles of equity.
- (w) Except as set forth in the Prospectus, the Company has no employee benefit plans (including, without limitation, profit sharing and welfare benefit plans) or deferred compensation arrangements that are subject to the provisions of the Employee Retirement Income Security Act of 1974.
- (x) To the best of the Company's knowledge, no labor problem exists with any of the Company's or the Subsidiary's employees or is imminent which could adversely affect the Company or the Subsidiary.
- (y) The Company has not, directly or indirectly, at any time (i) made any contributions to any candidate for political office, or failed to disclose fully any such contribution in violation of law or (ii) made any payment to any state, federal or foreign governmental officer or official, or other person charged with similar public or quasi-public duties, other than payments or contributions required or allowed by applicable law. The Company's internal accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the Foreign Corrupt Practices Act of 1977, as amended.
- (z) The Shares have been approved for listing on the Nasdaq SmallCap Market.
- (aa) The Company has provided to Tenzer Greenblatt LLP, counsel to the Underwriter ("Underwriter's Counsel"), all agreements, certificates,

correspondence and other items, documents and information requested pursuant to the Due Diligence List of Bizar Martin & Taub, LLP, counsel for the Company ("Company Counsel"), dated May 5, 1998 and the supplemental requests of Underwriter's Counsel dated June 26, 1998 and October 2, 1998.

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Any certificate signed by an officer of the Company and delivered to the Underwriter or to Underwriter's Counsel shall be deemed to be a representation and warranty by the Company to the Underwriter as to the matters covered thereby.

- 5. Certain Covenants of the Company. The Company covenants with the Underwriter as follows:
- (a) The Company will not at any time, whether before the Effective Date or thereafter during such period as the Prospectus is required by law to be delivered in connection with the sales of the Shares by the Underwriter or a dealer, file or publish any amendment or supplement to the Registration Statement or Prospectus of which the Underwriter has not been previously advised and furnished a copy, or to which the Underwriter shall object in writing.
- (b) The Company will use its best efforts to cause the Registration Statement to become effective and will advise the Underwriter immediately, and, if requested by the Underwriter, confirm such advice in writing, (i) when the Registration Statement, or any post-effective amendment to the Registration Statement or any supplemented Prospectus is filed with the Commission; (ii) of the receipt of any comments from the Commission; (iii) of any request of the Commission for amendment or supplementation of the Registration Statement or Prospectus or for additional information; and (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending the use of any Preliminary Prospectus, or of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, or of the initiation of any proceedings for any of such purposes. The Company will use its best efforts to prevent the issuance of any such stop order or of any order preventing or suspending such use and to obtain as soon as possible the lifting thereof, if any such order is issued.
- (c) The Company will deliver to the Underwriter, without charge, from time to time until the Effective Date, as many copies of each Preliminary Prospectus as the Underwriter may reasonably request, and the Company hereby consents to the use of such copies for purposes permitted by the Act. The Company will deliver to the Underwriter, without charge, as soon as the Registration Statement becomes effective, and thereafter from time to time as requested, such number of copies of the Prospectus (as supplemented, if the Company makes any supplements to the Prospectus) as the Underwriter may reasonably request upon request. The Company has furnished or will furnish to the Underwriter two signed copies of the Registration Statement as originally filed and of all amendments thereto, whether filed before or

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after the Registration Statement becomes effective, two copies of all exhibits filed therewith and two signed copies of all consents and certificates of experts.

(d) The Company will comply with the Act, the Regulations, the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations thereunder so as to permit the continuance of sales of and dealings in the Offered Shares and in any Optional Shares which may be issued and sold. If, at any time when a prospectus relating to the Shares is required to be delivered under the Act, any event occurs as a result of which the Registration Statement and Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, or if it shall be necessary to amend or supplement the Registration Statement and Prospectus to comply with the Act or the regulations thereunder, the Company will promptly file with the Commission,

subject to Section 5(a) hereof, an amendment or supplement which will correct such statement or omission or which will effect such compliance.

- (e) The Company will furnish such proper information as may be required and otherwise cooperate in qualifying the Shares for offering and sale under the securities or Blue Sky laws relating to the offering in such jurisdictions as the Underwriter may reasonably designate, provided that no such qualification will be required in any jurisdiction where, solely as a result thereof, the Company would be subject to service of general process or to taxation or qualification as a foreign corporation doing business in such jurisdiction.
- (f) The Company will make generally available to its security holders, in the manner specified in Rule 158(b) under the Act, and deliver to the Underwriter and Underwriter's Counsel as soon as practicable and in any event not later than 45 days after the end of its fiscal quarter in which the first anniversary date of the effective date of the Registration Statement occurs, an earning statement meeting the requirements of Rule 158(a) under the Act covering a period of at least 12 consecutive months beginning after the effective date of the Registration Statement.
- (g) For a period of five years from the Effective Date, the Company will deliver to the Underwriter and to Underwriter's Counsel on a timely basis (i) a copy of each report or document, including, without limitation, reports on Forms 8-K, 10-C, 10-K (or 10-KSB), 10-Q (or 10-QSB) and 10-C and exhibits thereto, filed or furnished to the Commission, any securities exchange or the National Association of Securities Dealers, Inc.

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(the "NASD") on the date each such report or document is so filed or furnished; (ii) as soon as practicable, copies of any reports or communications (financial or other) of the Company mailed to its security holders; (iii) as soon as practicable, a copy of any Schedule 13D, 13G, 14D-1 or 13E-3 received or prepared by the Company from time to time; (iv) monthly statements setting forth such information regarding the Company's results of operations and financial position (including balance sheet, profit and loss statements and data regarding outstanding purchase orders) as is regularly prepared by management of the Company; and (v) such additional information concerning the business and financial condition of the Company as the Underwriter may from time to time reasonably request and which can be prepared or obtained by the Company without unreasonable effort or expense. The Company will furnish to its shareholders annual reports containing audited financial statements and such other periodic reports as it may determine to be appropriate or as may be required by law.

- (h) Neither the Company nor any person that controls, is controlled by or is under common control with the Company will take any action designed to or which might be reasonably expected to cause or result in the stabilization or manipulation of the price of the Common Shares.
- (i) If the transactions contemplated by this Agreement are consummated, the Underwriter shall retain the \$50,000 previously paid to it, and the Company will pay or cause to be paid the following: all costs and expenses incident to the performance of the obligations of the Company under this Agreement, including, but not limited to, the fees and expenses of accountants and counsel for the Company; the preparation, printing, mailing and filing of the Registration Statement (including financial statements and exhibits), Preliminary Prospectuses and the Prospectus, and any amendments or supplements thereto; the printing and mailing of the Selected Dealer Agreement, the issuance and delivery of the Shares to the Underwriter; all taxes, if any, on the issuance of the Shares; the fees, expenses and other costs of qualifying the Shares for sale under the Blue Sky or securities laws of those states in which the Shares are to be offered or sold, including fees and disbursements of counsel in connection therewith, and including those of such local counsel as may have been retained for such purpose; the filing fees incident to securing any required review by the NASD and either the Boston Stock Exchange or Pacific Stock Exchange; the cost of printing and mailing the "Blue Sky Survey," the cost of furnishing to the Underwriter copies of the Registration Statement, Preliminary Prospectuses and the Prospectus as herein provided; the costs (up to \$12,000) of placing "tombstone advertisements" in any publications which may be selected by the Underwriter; and all other costs and expenses

incident to the performance of the Company's obligations hereunder which are not otherwise specifically provided for in this Section 5(i).

In addition, at the Closing Date or the Option Closing Date, as the case may be, the Underwriter will deduct from the payment for the Offered Shares or any Optional Shares three percent (3%) of the gross proceeds of the offering (less the sum of \$50,000 previously paid to the Underwriter), as payment for the Underwriter's nonaccountable expense allowance relating to the transactions contemplated hereby, which amount will include the fees and expenses of Underwriter's Counsel (other than the fees and expenses of Underwriter's Counsel relating to Blue Sky qualifications and registrations, which, as provided for above, shall be in addition to the three percent (3%) nonaccountable expense allowance and shall be payable directly by the Company to Underwriter's Counsel on or prior to the Closing Date). Prior to the Closing Date, Underwriter's Counsel will deliver a copy of the "Blue Sky Survey" to the Company.

(j) If the transactions contemplated by this Agreement or related hereto are not consummated because the Company decides not to proceed with the offering for any reason or because the Underwriter decides not to proceed with the offering as a result of a breach by the Company of its representations. warranties or covenants in this Agreement or as a result of material adverse changes in the affairs of the Company, then the Company will be obligated to reimburse the Underwriter for its accountable out-of-pocket expenses up to the sum of \$75,000, inclusive of amounts theretofore paid to the Underwriter by the Company. In all cases other than those set forth in the preceding sentence, if the Company or the Underwriter decides not to proceed with the offering for any other reason, the Company will only be obligated to reimburse the Underwriter for its accountable expenses up to \$50,000, inclusive of amounts theretofore paid to the Underwriter by the Company. In no event, however, will the Underwriter, in the event the offering is terminated, be entitled to retain or receive more than an amount equal to its actual accountable out-of-pocket expenses.

(k) The Company intends to apply the net proceeds from the sale of the Shares for the purposes set forth in the Prospectus. No portion of the net proceeds from the sale of the Shares will be used to repay any indebtedness other than (i) \$575,000 principal amount of indebtedness plus accrued interest thereon and (ii) up to \$95,000 of indebtedness to be assumed by the Company in connection with the acquisition of CommHome Systems Corp., provided that [, except as described in the

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Registration Statement,] none of such amounts described in (i) and (ii) of this Section 5(k) will be repaid to any person or entity that is, or will be prior to the Closing Date, an officer, director or securityholder beneficially owning five percent (5%) or more of the Common Shares (a "Principal Securityholder"), or any affiliate of any such person or entity. The Company will file with the Commission all required reports in accordance with the provisions of Rule 463 promulgated under the Act and will provide a copy of each such report to the Underwriter and its counsel.

(1) During the period of twelve (12) months from the Effective Date (the "Initial Lock-up Period"), neither the Company nor any of its officers, directors or security holders will offer for sale or sell or otherwise dispose of, directly or indirectly, any securities of the Company, in any manner whatsoever, other than by a private sale or gift in connection with which the transferee agrees to be bound by the terms of this agreement, whether pursuant to Rule 144 of the Regulations or otherwise, and no holders of registration rights relating to securities of the Company will exercise any such registration rights, in either case, without the prior written consent of the Underwriter. In addition, during the twelve (12) month period following the Initial Lock-up Period, no officer, director or Principal Securityholder will sell, transfer or otherwise dispose of any of its Common Shares during any three-month period in excess of the amount that such person would be allowed to sell if it were deemed an "affiliate" of the Company and its shares were deemed "restricted," as those terms are defined in Rule 144 promulgated under the Act, other than by a private sale or gift in connection with which the transferee agrees to be bound by the

terms of this agreement, without the prior written consent of the Underwriter.

- (m) The Company will not file any registration statement relating to the offer or sale of any of the Company's securities, including any registration statement on Form S-8, during the twelve (12) months from the Effective Date, without the Underwriter's prior written consent.
- (n) The Company maintains and will continue to maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with generally accepted accounting principles and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with

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existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

- (o) The Company will use its best efforts to maintain the listing of the Shares on the Nasdaq SmallCap Market and will, if so qualified, list the Shares, and maintain such listing for so long as qualified, on the Nasdaq National Market System.
- (p) The Company will, concurrently with the Effective Date, register the class of equity securities of which the Shares are a part under Section 12(g) of the Exchange Act and the Company will maintain such registration for a minimum of five (5) years from the Effective Date.
- (q) Subject to the sale of the Offered Shares, the Underwriter and its successors will have the right to designate a nominee for election, at its or their option, either as a member of or a non-voting advisor to the Board of Directors of the Company (which Board, during such period, shall be comprised of at least five (5) persons, a majority of the members of which Board must, during such period, be persons not otherwise affiliated with the Company, its management or its founders), and the Company will use its best efforts to cause such nominee to be elected and continued in office as a director of the Company or as such advisor until the expiration of five (5) years from the Effective Date. Except to the extent waived by the Underwriter, each of the Company's current officers, directors and shareholders agrees to vote all of the Common Shares owned by such person or entity so as to elect and continue in office such nominee of the Underwriter. Following the election of such nominee as a director or advisor, such person shall receive no more or less compensation than is paid to other non-officer directors of the Company for attendance at meetings of the Board of Directors of the Company and shall be entitled to receive reimbursement for all reasonable costs incurred in attending such meetings including, but not limited to, food, lodging and transportation. The Company agrees to indemnify and hold such director or advisor harmless, to the maximum extent permitted by law, against any and all claims, actions, awards and judgments arising out of his service as a director or advisor and to maintain a liability insurance policy affording coverage for the acts of its officers and directors, to include such director or advisor as an insured under such policy. The rights and benefits of such indemnification and the benefits of such insurance shall, to the extent possible, extend to the Underwriter insofar as it may be or may be alleged to be responsible for such director or advisor.

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If the Underwriter does not exercise its option to designate a member of or advisor to the Company's Board of Directors, the Underwriter shall nonetheless have the right to send a representative (who need not be the same individual from meeting to meeting) to observe each meeting of the Board of Directors. The Company agrees to give the Underwriter notice of each such meeting and to provide the Underwriter with an agenda and minutes of the meeting no later than it gives such notice and provides such items to the directors.

(r) The Company shall retain a transfer agent for the Common Shares, reasonably acceptable to the Underwriter, for a period of five (5) years

from the Effective Date. In addition, for a period of five (5) years from the Effective Date, the Company, at its own expense, shall cause such transfer agent to provide the Underwriter, if so requested in writing, with copies of the Company's daily transfer sheets, and, when requested by the Underwriter, a current list of the Company's securityholders, including a list of the beneficial owners of securities held by a depository trust company and other nominees.

- (s) The Company hereby agrees, at its sole cost and expense, to supply and deliver to the Underwriter and Underwriter's Counsel, within a reasonable period from the date hereof, four bound volumes, including the Registration Statement, as amended or supplemented, all exhibits to the Registration Statement, the Prospectus and all other underwriting documents.
- (t) The Company shall, as of the date hereof, have applied for listing in Standard & Poor's Corporation Records Service (including annual report information) or Moody's Industrial Manual (Moody's OTC Industrial Manual not being sufficient for these purposes) and shall use its best efforts to have the Company listed in such manual and shall maintain such listing for a period of five years from the Effective Date.
- (u) For a period of five (5) years from the Effective Date, the Company shall provide the Underwriter, on a not less than annual basis, with internal forecasts setting forth projected results of operations for each quarterly and annual period in the two (2) fiscal years following the respective dates of such forecasts. Such forecasts shall be provided to the Underwriter more frequently than annually if prepared more frequently by management, and revised forecasts shall be prepared and provided to the Underwriter when required to reflect more current information, revised assumptions or actual results that differ materially from those set forth in the forecasts.
- (v) For a period of five (5) years from the Effective Date, or until such earlier time as the Common Shares

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are listed on the New York Stock Exchange or the American Stock Exchange, the Company shall cause its legal counsel to provide the Underwriter with a list, to be updated at least annually, of those states in which the Common Shares may be traded in non- issuer transactions under the Blue Sky laws of the 50 states.

- (w) For a period of five (5) years from the Effective Date, the Company shall continue to retain Richard A. Eisner & Company, LLP (or such other nationally recognized accounting firm acceptable to the Underwriter) as the Company's independent public accountants.
- (x) For a period of five (5) years from the Effective Date, the Company, at its expense, shall cause its then independent certified public accountants, as described in Section 5(w) above, to review (but not audit) the Company's financial statements for each of the first three fiscal quarters prior to the announcement of quarterly financial information, the filing of the Company's 10-Q (or 10-QSB) quarterly report (or other equivalent report) and the mailing of quarterly financial information to shareholders.
- (y) For a period of twenty-five (25) days from the Effective Date, the Company will not issue press releases or engage in any other publicity without the Underwriter's prior written consent, other than normal and customary releases issued in the ordinary course of the Company's business or those releases required by law.
- (z) The Company will not increase or authorize an increase in the compensation of its five (5) most highly paid employees in excess of the compensation paid to such employees as of the Effective Date, without the prior written consent of the Underwriter, for a period of three (3) years from the Effective Date.
- (aa) For a period of five (5) years from the Effective Date, the Company will promptly submit to the Underwriter copies of accountant's management reports and similar correspondence between the Company's accountants and the Company.
  - (ab) For a period of three (3) years from the Effective Date, the

Company will not offer or sell any of its securities (i) pursuant to Regulation S promulgated under the Act or which are convertible or exercisable into Common Shares at a price which may be adjusted from time to time based on the future market price of the Common Shares, without the prior written consent of the Underwriter, or (ii) at a discount to market or in a discounted transaction (other than as described in clause (i)

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above), without the prior written consent of the Underwriter, which shall not be unreasonably withheld.

- (ac) For a period of three (3) years from the Effective Date, the Company will provide to the Underwriter ten days' written notice prior to any issuance by the Company or its subsidiaries of any equity securities or securities exchangeable for or convertible into equity securities of the Company, except for (i) Common Shares issuable upon exercise of currently outstanding options and warrants or conversion of currently outstanding convertible securities and (ii) options (and shares issuable upon exercise of such options) available for future grant pursuant to any stock option plan in effect on the Effective Date or a future plan approved by the Company's shareholders.
- (ad) For a period of five (5) years from the Effective Date, the Company will cause its Board of Directors to meet, either in person or telephonically, a minimum of four (4) times per year and will hold a shareholder's meeting at least once per annum.
- (ae) Prior to the Effective Date, the Company shall have obtained directors' and officers' insurance naming the Underwriter as an additional insured party, in an amount equal to twenty-five percent (25%) of the gross proceeds of the offering, and the Company will maintain such insurance for a period of at least three (3) years from the Closing Date.
- 6. Conditions of the Underwriter's Obligation to Purchase Shares from the Company. The obligation of the Underwriter to purchase and pay for the Offered Shares which it has agreed to purchase from the Company is subject (as of the date hereof and the Closing Date) to the accuracy of and compliance in all material respects with the representations and warranties of the Company herein, to the accuracy of the statements of the Company or its officers made pursuant hereto, to the performance in all material respects by the Company of its obligations hereunder, and to the following additional conditions:
- (a) The Registration Statement will have become effective not later than \_\_.M., New York City time, on the date hereof, or at such later time or on such later date as the Underwriter may agree to in writing; prior to the Closing Date, no stop order suspending the effectiveness of the Registration Statement will have been issued and no proceedings for that purpose will have been initiated or will be pending or, to the best of the Underwriter's or the Company's knowledge, will be contemplated by the Commission; and any request on the part of

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the Commission for additional information will have been complied with to the satisfaction of Underwriter's Counsel.

- (b) At the time that this Agreement is executed and at the Closing Date, there will have been delivered to the Underwriter a signed opinion of Company Counsel, dated as of the date hereof or the Closing Date, as the case may be (and any other opinions of counsel referred to in such opinion of Company Counsel or relied upon by Company Counsel in rendering their opinion), reasonably satisfactory to Underwriter's Counsel, to the effect that:
- (i) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware, with full power and authority, corporate and other, and with all Permits necessary to own or lease, as the case may be, and operate its properties, whether tangible or intangible, and to conduct its business as described in the Registration Statement. The Subsidiary is a corporation duly organized, validly existing and in good standing under the laws of the state of Delaware, with full power and

authority, corporate and other, to own or lease, as the case may be, and operate its properties, whether tangible or intangible, and to conduct its business as described in the Registration Statement. Each of the Company and the Subsidiary is duly qualified to do business as a foreign corporation and is in good standing in all jurisdictions wherein such qualification is necessary, except in such jurisdictions where the failure so to qualify or be in good standing would not have a material adverse effect on the financial condition, results of operations, business or properties of the Company and the Subsidiary taken as a whole.

The Company owns 100% of the issued and outstanding shares of capital stock of the Subsidiary, and such shares are free and clear of any security interests, liens, encumbrances, claims and charges, and all of such shares have been duly authorized and validly issued and are fully paid and nonassessable. There are no options or warrants for the purchase of, or other rights to purchase, or outstanding securities convertible into or exchangeable for, any capital stock or other securities of the Subsidiary.

(ii) The Company has full power and authority, corporate and other, to execute, deliver and perform this Agreement and the Underwriter's Warrant Agreement and to consummate the transactions contemplated hereby and thereby. The execution, delivery and performance of this Agreement and the Underwriter's Warrant Agreement by the Company, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms of

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this Agreement and the Underwriter's Warrant Agreement have been duly authorized by all necessary corporate action, and this Agreement has been duly executed and delivered by the Company. This Agreement is (assuming for the purposes of this opinion that it is valid and binding upon the other party thereto) and, when executed and delivered by the Company on the Closing Date, the Underwriter's Warrant Agreement will be, valid and binding obligations of the Company, enforceable in accordance with their respective terms, subject, as to enforcement of remedies, to applicable bankruptcy, insolvency, reorganization, moratorium and other laws affecting the rights of creditors generally and the discretion of courts in granting equitable remedies and except that enforceability of the indemnification provisions set forth in Section 7 hereof and the contribution provisions set forth in Section 8 hereof may be limited by the federal securities laws or public policy underlying such laws.

(iii) The execution, delivery and performance of this Agreement and the Underwriter's Warrant Agreement by the Company, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms of this Agreement and the Underwriter's Warrant Agreement do not, and will not, with or without the giving of notice or the lapse of time, or both, (A) result in a violation of the Certificate of Incorporation or ByLaws, each as amended, of the Company or the Subsidiary, (B) result in a breach of or conflict with any terms or provisions of, or constitute a default under, or result in the modification or termination of, or result in the creation or imposition of any lien, security interest, charge or encumbrance upon any of the properties or assets of the Company or the Subsidiary pursuant to any indenture, mortgage, note, contract, commitment or other material agreement or instrument to which the Company or the Subsidiary is a party or by which the Company or the Subsidiary or any of the Company's or the Subsidiary's properties or assets are or may be bound or affected; (C) violate any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or the Subsidiary or any of the Company's or the Subsidiary's properties or business; or (D) have any effect on any Permit necessary for the Company or the Subsidiary to own or lease and operate its properties or conduct its business or the ability of the Company or the Subsidiary to make use thereof.

(iv) To the best of Company Counsel's knowledge, no Permits of any court or governmental agency or body (other than under the Act, the Regulations and applicable state securities or Blue Sky laws) are required for the valid authorization, issuance, sale and delivery of the Shares or the

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Underwriter's Warrants to the Underwriter, and the consummation by the Company of the transactions contemplated by this Agreement or the Underwriter's Warrant Agreement.

- (v) The Registration Statement has become effective under the Act; to the best of Company Counsel's knowledge, no stop order suspending the effectiveness of the Registration Statement has been issued, and no proceedings for that purpose have been instituted or are pending, threatened or contemplated under the Act or applicable state securities laws.
- (vi) The Registration Statement and the Prospectus, as of the Effective Date, and each amendment or supplement thereto as of its effective or issue date (except for the financial statements and other financial data included therein or omitted therefrom, as to which Company Counsel need not express an opinion) comply as to form in all material respects with the requirements of the Act and Regulations and the conditions for use of a registration statement on Form SB-2 have been satisfied by the Company.
- (vii) The descriptions in the Registration Statement and the Prospectus of statutes, regulations, government classifications, contracts and other documents (including opinions of such counsel); and the response to Item 13 of Form SB-2 have been reviewed by Company Counsel, and, based upon such review, are accurate in all material respects and present fairly the information required to be disclosed, and there are no material statutes, regulations or government classifications, or, to the best of Company Counsel's knowledge, material contracts or documents, of a character required to be described in the Registration Statement or the Prospectus or to be filed as exhibits to the Registration Statement, which are not so described or filed as required.

None of the material provisions of the contracts or instruments described above violates any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court having jurisdiction over the Company or the Subsidiary or any of their assets or business.

(viii) The outstanding Common Shares and outstanding options and warrants to purchase Common Shares have been duly authorized and validly issued. The outstanding Common Shares are fully paid and nonassessable. The outstanding options and warrants to purchase Common Shares constitute the valid and binding obligations of the Company, enforceable in accordance with their terms. None of the outstanding Common Shares or options or warrants to purchase Common Shares has been issued in violation of the preemptive rights of any shareholder of the

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Company. None of the holders of the outstanding Common Shares is subject to personal liability solely by reason of being such a holder. The offers and sales of the outstanding Common Shares and outstanding options and warrants to purchase Common Shares were at all relevant times either registered under the Act and the applicable state securities or Blue Sky laws or exempt from such registration requirements. The authorized Common Shares and outstanding options and warrants to purchase Common Shares conform to the descriptions thereof contained in the Registration Statement and Prospectus. To the best of Company Counsel's knowledge, except as set forth in the Prospectus, no holders of any of the Company's securities has any rights, "demand," "piggyback" or otherwise, to have such securities registered under the Act.

- (ix) The issuance and sale of the Shares have been duly authorized and, when the Shares have been issued and duly delivered against payment therefor as contemplated by this Agreement, the Shares will be validly issued, fully paid and nonassessable, and the holders thereof will not be subject to personal liability solely by reason of being such holders. The Shares are not subject to preemptive rights of any shareholder of the Company. The certificates representing the Shares are in proper legal form.
- (x) The issuance and sale of the Common Shares issuable upon exercise of the Underwriter's Warrants have been duly authorized and, when such Common Shares have been duly delivered against payment therefor, as contemplated by the Underwriter's Warrant Agreement, such Common Shares will be validly issued, fully paid and nonassessable. Holders of Common Shares issuable upon exercise of the Underwriter's Warrants will not be subject to personal liability

solely by reason of being such holders. Neither the Underwriter's Warrants nor the Common Shares issuable upon exercise thereof will be subject to preemptive rights of any shareholder of the Company. The Warrant Shares issuable upon exercise of the Underwriter's Warrants have been duly reserved for issuance upon exercise of the Underwriter's Warrants in accordance with the provisions of the Underwriter's Warrant Agreement. The Underwriter's Warrants conform to the descriptions thereof in the Registration Statement and Prospectus.

(xi) Upon delivery of the Offered Shares to the Underwriter against payment therefor as provided in this Agreement, the Underwriter (assuming it is a bona fide purchaser within the meaning of the Uniform Commercial Code) will acquire good title to the Offered Shares, free and clear of all liens, encumbrances, equities, security interests and claims.

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(xii) Assuming that the Underwriter exercises the over-allotment option to purchase any of the Optional Shares and makes payment therefor in accordance with the terms of this Agreement, upon delivery of the Optional Shares to the Underwriter hereunder, the Underwriter (assuming it is a bona fide purchaser within the meaning of the Uniform Commercial Code) will acquire good title to such Optional Shares, free and clear of any liens, encumbrances, equities, security interests and claims.

(xiii) To the best of Company Counsel's knowledge, there are no claims, actions, suits, proceedings, arbitrations, investigations or inquiries before any governmental agency, court or tribunal, foreign or domestic, or before any private arbitration tribunal, pending or threatened against the Company or the Subsidiary or involving the Company's or the Subsidiary's properties or business, other than as described in the Prospectus, such description being accurate, and other than litigation incident to the kind of business conducted by the Company which, individually and in the aggregate, is not material.

(xiv) Company Counsel has participated in reviews and discussions in connection with the preparation of the Registration Statement and the Prospectus, and in the course of such reviews and discussions and such other investigation as Company Counsel deemed necessary, no facts came to its attention which lead it to believe that (A) the Registration Statement (except as to the financial statements and other financial data contained therein, as to which Company Counsel need not express an opinion), on the Effective Date, contained any untrue statement of a material fact required to be stated therein or omitted to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, or that (B) the Prospectus (except as to the financial statements and other financial data contained therein, as to which Company Counsel need not express an opinion) contains any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

In rendering its opinion pursuant to this Section 6(b), Company Counsel may rely upon the certificates of government officials and officers of the Company as to matters of fact, provided that Company Counsel shall state that they have no reason to believe, and do not believe, that they are not justified in relying upon such opinions or such certificates of government officials and officers of the Company as to matters of fact, as the case may be.

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The opinion letter delivered pursuant to this Section 6(b) shall state that any opinion given therein qualified by the phrase "to the best of our knowledge" is being given by Company Counsel after due investigation of the matters therein discussed. Company Counsel shall not be required to state any opinion as to the Intangibles (as defined below) with respect to Sections 6(b)(i) through 6(b)(xiii) of the opinion letter delivered pursuant to this Section 6(b).

(c) At the time that this Agreement is executed and at the Closing Date, there will have been delivered to the Underwriter a signed opinion

of Cobrin & Gittes, special intellectual property counsel for the Company ("IP Counsel"), dated as of the date hereof or the Closing Date, as the case may be, reasonably satisfactory to Underwriter's Counsel, to the effect that:

- (i) To the best of IP Counsel's knowledge, the Company and the Subsidiary have not infringed and are not infringing upon the rights of others with respect to all patents, patent applications, trademarks, service marks, copyrights, rights, trade secrets, confidential information, processes and formulations used or proposed to be used in the conduct of their business as described in the Prospectus (collectively the "Intangibles"); and, to the best of IP Counsel's knowledge, neither the Company nor the Subsidiary has received any notice that it has or may have infringed, is infringing upon or is conflicting with the asserted rights of others with respect to the Intangibles which might, singly or in the aggregate, materially adversely affect its business, results of operations or financial condition, and such counsel is not aware of any licenses with respect to the Intangibles which are required to be obtained by the Company or the Subsidiary.
- (ii) IP Counsel confirms the opinion of IP Counsel dated June 23, 1997 and addressed to the Company (a copy of which shall be attached thereto) in all material respects as if such opinion was given on the date hereof (IP Counsel may restate such opinion in its entirety).

In rendering its opinion pursuant to this Section 6(c), IP Counsel may rely upon the certificates of government officials and officers of the Company as to matters of fact, provided that IP Counsel shall state that they have no reason to believe, and do not believe, that they are not justified in relying upon such opinions or such certificates of government officials and officers of the Company as to matters of fact, as the case may be.

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The opinion letter delivered pursuant to this Section 6(c) shall state that any opinion given therein qualified by the phrase "to the best of our knowledge" is being given by IP Counsel after due investigation of the matters therein discussed.

- (d) At the Closing Date, there will have been delivered to the Underwriter a signed opinion of Underwriter's Counsel, dated as of the Closing Date, to the effect that the opinions delivered pursuant to Sections 6(b) and 6(c) hereof appear on their face to be appropriately responsive to the requirements of this Agreement, except to the extent waived by the Underwriter, specifying the same, and with respect to such related matters as the Underwriter may require.
- (e) At the Closing Date (i) the Registration Statement and the Prospectus and any amendments or supplements thereto will contain all material statements which are required to be stated therein in accordance with the Act and the Regulations and will conform in all material respects to the requirements of the Act and the Regulations, and neither the Registration Statement nor the Prospectus nor any amendment or supplement thereto will contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; (ii) since the respective dates as of which information is given in the Registration Statement and the Prospectus, there will not have been any material adverse change in the financial condition, results of operations or general affairs of the Company from that set forth or contemplated in the Registration Statement and the Prospectus, except changes which the Registration Statement and the Prospectus indicate might occur after the Effective Date; (iii) since the respective dates as of which information is given in the Registration Statement and the Prospectus, there shall have been no material transaction, contract or agreement entered into by the Company, other than in the ordinary course of business, which would be required to be set forth in the Registration Statement and the Prospectus, other than as set forth therein; and (iv) no action, suit or proceeding at law or in equity will be pending or, to the best of the Company's knowledge, threatened against the Company which is required to be set forth in the Registration Statement and the Prospectus, other than as set forth therein, and no proceedings will be pending or, to the best of the Company's knowledge. threatened against the Company before or by any federal, state or other commission, board or administrative agency wherein an unfavorable decision,

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the Closing Date, there will be delivered to the Underwriter a certificate signed by the Chief Executive Officer and Chief Financial Officer or a Vice President of the Company, dated the Closing Date, evidencing compliance with the provisions of this Section 6(e) and stating that the representations and warranties of the Company set forth in Section 4 hereof were accurate and complete in all material respects when made on the date hereof and are accurate and complete in all material respects on the Closing Date as if then made; that the Company has performed all covenants and complied with all conditions required by this Agreement to be performed or complied with by the Company prior to or as of the Closing Date; and that, as of the Closing Date, no stop order suspending the effectiveness of the Registration Statement has been issued and no proceedings for that purpose have been initiated or, to the best of his knowledge, are contemplated or threatened. In addition, the Underwriter will have received such other and further certificates of officers of the Company as the Underwriter or Underwriter's Counsel may reasonably request.

(f) At the time that this Agreement is executed and at the Closing Date, the Underwriter will have received a signed letter from Richard A. Eisner & Company, LLP, dated the date such letter is to be received by the Underwriter and addressed to it, confirming that it is a firm of independent public accountants within the meaning of the Act and Regulations and stating that: (i) insofar as reported on by them, in their opinion, the financial statements of the Company included in the Prospectus comply as to form in all material respects with the applicable accounting requirements of the Act and the applicable Regulations; (ii) on the basis of procedures and inquiries (not constituting an examination in accordance with generally accepted auditing standards) consisting of a review described in SAS No. 71 of the unaudited interim financial statements of the Company, if any, appearing in the Registration Statement and the Prospectus and a reading of the latest available unaudited interim financial statements of the Company, if more recent than that appearing in the Registration Statement and Prospectus, inquiries of officers of the Company responsible for financial and accounting matters as to the transactions and events subsequent to the date of the latest audited financial statements of the Company, and a reading of the minutes of meetings of the shareholders, the Board of Directors of the Company and any committees of the Board of Directors, as set forth in the minute books of the Company, nothing has come to their attention which, in their judgment, would indicate that (A) during the period from the date of the latest financial statements of the Company appearing in the Registration Statement and Prospectus to a specified date not more than three business days prior to the date of such letter, there have been any decreases in net current

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assets or net assets as compared with amounts shown in such financial statements or decreases in net sales or decreases [increases] in total or per share net income [loss] compared with the corresponding period in the preceding year or any change in the capitalization or long-term debt of the Company, except in all cases as set forth in or contemplated by the Registration Statement and the Prospectus, and (B) the unaudited interim financial statements of the Company, if any, appearing in the Registration Statement and the Prospectus, do not comply as to form in all material respects with the applicable accounting requirements of the Act and the Regulations or any material modifications should be made to such statements for them to be in conformity with generally accepted accounting principles and practices on a basis substantially consistent with the audited financial statements included in the Registration Statement or the Prospectus; and (iii) they have compared specific dollar amounts, numbers of shares, numerical data, percentages of revenues and earnings, and other financial information pertaining to the Company set forth in the Prospectus (with respect to all dollar amounts, numbers of shares, percentages and other financial information contained in the Prospectus, to the extent that such amounts, numbers, percentages and information may be derived from the general accounting records of the Company, and excluding any questions requiring an interpretation by legal counsel) with the results obtained from the application of specified readings, inquiries and other requested procedures (which

procedures do not constitute an examination in accordance with generally accepted auditing standards) set forth in the letter, and found them to be in agreement.

- (g) There shall have been duly tendered to the Underwriter certificates representing the Offered Shares to be sold on the Closing Date.
- (h) The NASD shall have indicated that it has no objection to the underwriting arrangements pertaining to the sale of the Shares by the Underwriter.
- (i) No action shall have been taken by the Commission or the NASD the effect of which would make it improper, at any time prior to the Closing Date or the Option Closing Date, as the case may be, for any member firm of the NASD to execute transactions (as principal or as agent) in the Shares, and no proceedings for the purpose of taking such action shall have been instituted or shall be pending, or, to the best of the Underwriter's or the Company's knowledge, shall be contemplated by the Commission or the NASD. The Company represents at the date hereof, and shall represent as of the Closing Date or Option Closing Date, as the case may be, that it has no knowledge that

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any such action is in fact contemplated by the Commission or the NASD.

- (j) The Company meets the current and any existing and proposed criteria for inclusion of the Shares on the Nasdaq SmallCap Market.
- (k) All proceedings taken at or prior to the Closing Date or the Option Closing Date, as the case may be, in connection with the authorization, issuance and sale of the Shares shall be reasonably satisfactory in form and substance to the Underwriter and to Underwriter's Counsel, and such counsel shall have been furnished with all such documents, certificates and opinions as they may request for the purpose of enabling them to pass upon the matters referred to in Section 6(d) hereof and in order to evidence the accuracy and completeness of any of the representations, warranties or statements of the Company, the performance of any covenants of the Company, or the compliance by the Company with any of the conditions herein contained.
- (k) As of the date hereof, the Company will have delivered to the Underwriter the written undertakings of its officers, directors and securityholders and/or registration rights holders, as the case may be, to the effect of the matters set forth in Sections 5 (l) and (q).

If any of the conditions specified in this Section 6 have not been fulfilled, this Agreement may be terminated by the Underwriter on notice to the Company.

## 7. Indemnification.

(a) The Company agrees to indemnify and hold harmless the Underwriter, each officer, director, partner, employee and agent of the Underwriter, and each person, if any, who controls the Underwriter within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act, from and against any and all losses, claims, damages, expenses or liabilities, joint or several (and actions in respect thereof), to which they or any of them may become subject under the Act or under any other statute or at common law or otherwise, and, except as hereinafter provided, will reimburse the Underwriter and each such person, if any, for any legal or other expenses reasonably incurred by them or any of them in connection with investigating or defending any actions, whether or not resulting in any liability, insofar as such losses, claims, damages, expenses, liabilities or actions arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained (i) in the Registration Statement, in any Preliminary Prospectus or in the Prospectus (or the Registration Statement or

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information furnished by or on behalf of the Company, filed in any jurisdiction in order to qualify the Shares under the securities laws thereof (hereinafter "application"), or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary in order to make the statements therein not misleading, in light of the circumstances under which they were made, unless such untrue statement or omission was made in such Registration Statement, Preliminary Prospectus, Prospectus or application in reliance upon and in conformity with information furnished in writing to the Company in connection therewith by the Underwriter or any such person through the Underwriter expressly for use therein; provided, however, that the indemnity agreement contained in this Section 7(a) with respect to any Preliminary Prospectus will not inure to the benefit of the Underwriter (or to the benefit of any other person that may be indemnified pursuant to this Section 7(a)) if (A) the person asserting any such losses, claims, damages, expenses or liabilities purchased the Shares which are the subject thereof from the Underwriter or other indemnified person; (B) the Underwriter or other indemnified person failed to send or give a copy of the Prospectus to such person at or prior to the written confirmation of the sale of such Shares to such person; and (C) the Prospectus did not contain any untrue statement or alleged untrue statement or omission or alleged omission giving rise to such cause, claim, damage, expense or liability.

(b) The Underwriter agrees to indemnify and hold harmless the Company, each of its directors, each of its officers who have signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act, from and against any and all losses, claims, damages, expenses or liabilities, joint or several (and actions in respect thereof), to which they or any of them may become subject under the Act or under any other statute or at common law or otherwise, and, except as hereinafter provided, will reimburse the Company and each such director, officer or controlling person for any legal or other expenses reasonably incurred by them or any of them in connection with investigating or defending any actions, whether or not resulting in any liability, insofar as such losses, claims, damages, expenses, liabilities or actions arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained (i) in the Registration Statement, in any Preliminary Prospectus or in the Prospectus (or the Registration Statement or Prospectus as from time to time amended or supplemented) or (ii) in any application (including any application for registration of the Shares under state securities

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or Blue Sky laws), or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary in order to make the statements therein not misleading, in light of the circumstances under which they were made, but only insofar as any such statement or omission was made in reliance upon and in conformity with information furnished in writing to the Company in connection therewith by the Underwriter expressly for use therein.

(c) Promptly after receipt of notice of the commencement of any action in respect of which indemnity may be sought against any indemnifying party under this Section 7, the indemnified party will notify the indemnifying party in writing of the commencement thereof, and the indemnifying party will, subject to the provisions hereinafter stated, assume the defense of such action (including the employment of counsel satisfactory to the indemnified party and the payment of expenses) insofar as such action relates to an alleged liability in respect of which indemnity may be sought against the indemnifying party. After notice from the indemnifying party of its election to assume the defense of such claim or action, the indemnifying party shall no longer be liable to the indemnified party under this Section 7 for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense thereof other than reasonable costs of investigation; provided, however, that if, in the reasonable judgment of the indemnified party or parties, it is advisable for the indemnified party or parties to be represented by separate counsel, the indemnified party or parties shall have the right to employ a single counsel to represent the indemnified parties who may be subject to liability arising out of any claim in respect of which indemnity may be sought by the indemnified parties thereof against the indemnifying party, in which event the fees and expenses of such separate counsel shall be borne by the indemnifying party. Any party against whom indemnification may be sought under this Section 7 shall not be liable to indemnify any person that might otherwise be indemnified pursuant hereto for any settlement of any action effected without such indemnifying party's consent, which consent shall not be unreasonably withheld.

8. Contribution. To provide for just and equitable contribution, if
(i) an indemnified party makes a claim for indemnification pursuant to Section 7 hereof (subject to the limitations thereof) and it is finally determined, by a judgment, order or decree not subject to further appeal, that such claim for indemnification may not be enforced, even though this Agreement expressly provides for indemnification in such case; or (ii) any indemnified or indemnifying party seeks contribution under the Act, the Exchange Act, or otherwise, then the Company (including, for this purpose, any contribution made by or on

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behalf of any director of the Company, any officer of the Company who signed the Registration Statement and any controlling person of the Company) as one entity and the Underwriter (including, for this purpose, any contribution by or on behalf of each person, if any, who controls the Underwriter within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act and each officer, director, partner, employee and agent of the Underwriter) as a second entity. shall contribute to the losses, liabilities, claims, damages and expenses whatsoever to which any of them may be subject, so that the Underwriter is responsible for the proportion thereof equal to the percentage which the underwriting discount per Share set forth on the cover page of the Prospectus represents of the initial public offering price per Share set forth on the cover page of the Prospectus and the Company is responsible for the remaining portion; provided, however, that if applicable law does not permit such allocation, then, if applicable law permits, other relevant equitable considerations such as the relative fault of the Company and the Underwriter in connection with the facts which resulted in such losses, liabilities, claims, damages and expenses shall also be considered. The relative fault, in the case of an untrue statement, alleged untrue statement, omission or alleged omission, shall be determined by, among other things, whether such statement, alleged statement, omission or alleged omission relates to information supplied by the Company or by the Underwriter, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement, alleged statement, omission or alleged omission. The Company and the Underwriter agree that it would be unjust and inequitable if the respective obligations of the Company and the Underwriter for contribution were determined by pro rata or per capita allocation of the aggregate losses, liabilities, claims, damages and expenses or by any other method of allocation that does not reflect the equitable considerations referred to in this Section 8. No person guilty of a fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) will be entitled to contribution from any person who is not guilty of such fraudulent misrepresentation. For purposes of this Section 8, each person, if any, who controls the Underwriter within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act and each officer, director, partner, employee and agent of the Underwriter will have the same rights to contribution as the Underwriter, and each person, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act, each officer of the Company who has signed the Registration Statement and each director of the Company will have the same rights to contribution as the Company, subject in each case to the provisions of this Section 8. Anything in this Section 8 to the contrary notwithstanding, no party will be liable for contribution with respect to the settlement of any

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claim or action effected without its written consent. This Section 8 is intended to supersede, to the extent permitted by law, any right to contribution under the Act or the Exchange Act or otherwise available.

9. Survival of Indemnities, Contribution, Warranties and Representations. The respective indemnity and contribution agreements of the Company and the Underwriter contained in Sections 7 and 8 hereof, and the representations and warranties of the Company contained herein shall remain operative and in full force and effect, regardless of any termination or cancellation of this Agreement or any investigation made by or on behalf of the

Underwriter, the Company or any of its directors and officers, or any controlling person referred to in said Sections, and shall survive the delivery of, and payment for, the Shares.

## 10. Termination of Agreement.

- (a) The Company, by written or telegraphic notice to the Underwriter, or the Underwriter, by written or telegraphic notice to the Company, may terminate this Agreement prior to the earlier of (i) 11:00 A.M., New York City time, on the first full business day after the Effective Date; or (ii) the time when the Underwriter, after the Registration Statement becomes effective, releases the Offered Shares for public offering. The time when the Underwriter "releases the Offered Shares for public offering" for the purposes of this Section 10 means the time when the Underwriter releases for publication the first newspaper advertisement, which is subsequently published, relating to the Offered Shares, or the time when the Underwriter releases for delivery to members of a selling group copies of the Prospectus and an offering letter or an offering telegram relating to the Offered Shares, whichever will first occur.
- (b) This Agreement, including without limitation, the obligation to purchase the Shares and the obligation to purchase the Optional Shares after exercise of the option referred to in Section 3 hereof, are subject to termination in the absolute discretion of the Underwriter, by notice given to the Company prior to delivery of and payment for all the Offered Shares or such Optional Shares, as the case may be, if, prior to such time, any of the following shall have occurred: (i) the Company withdraws the Registration Statement from the Commission or the Company does not or cannot expeditiously proceed with the public offering; (ii) the representations and warranties in Section 4 hereof are not materially correct or cannot be complied with; (iii) trading in securities generally on the New York Stock Exchange or the American Stock Exchange will have been suspended; (iv) limited or minimum prices will have been established on

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either such Exchange; (v) a banking moratorium will have been declared either by federal or New York State authorities; (vi) any other restrictions on transactions in securities materially affecting the free market for securities or the payment for such securities, including the Offered Shares or the Optional Shares, will be established by either of such Exchanges, by the Commission, by any other federal or state agency, by action of the Congress or by Executive Order; (vii) trading in any securities of the Company shall have been suspended or halted by any national securities exchange, the NASD or the Commission; (viii) there has been a materially adverse change in the condition (financial or otherwise), prospects or obligations of the Company; (ix) the Company will have sustained a material loss, whether or not insured, by reason of fire, flood, accident or other calamity; (x) any action has been taken by the government of the United States or any department or agency thereof which, in the judgment of the Underwriter, has had a material adverse effect upon the market or potential market for securities in general; or (xi) the market for securities in general or political, financial or economic conditions will have so materially adversely changed that, in the judgment of the Underwriter, it will be impracticable to offer for sale, or to enforce contracts made by the Underwriter for the resale of, the Offered Shares or the Optional Shares, as the case may be.

- (c) If this Agreement is terminated pursuant to Section 6 hereof or this Section 10 or if the purchases provided for herein are not consummated because any condition of the Underwriter's obligations hereunder is not satisfied or because of any refusal, inability or failure on the part of the Company to comply with any of the terms or to fulfill any of the conditions of this Agreement, or if for any reason the Company shall be unable to or does not perform all of its obligations under this Agreement, the Company will not be liable to the Underwriter for damages on account of loss of anticipated profits arising out of the transactions covered by this Agreement, but the Company will remain liable to the extent provided in Sections 5(j), 7, 8 and 9 of this Agreement.
- 11. Information Furnished by the Underwriter to the Company. It is hereby acknowledged and agreed by the parties hereto that for the purposes of this Agreement, including, without limitation, Sections 4(f), 7(a), 7(b) and 8 hereof, the only information given by the Underwriter to the Company for use in the Prospectus are the statements set forth in the last sentence of the last

paragraph on the cover page, the statement appearing in the last paragraph on page \_\_ with respect to stabilizing the market price of Shares, the information in the \_\_ paragraph on page \_\_ with respect to concessions and reallowances, and the information in the \_\_\_ paragraph on page

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\_\_\_ with respect to the determination of the public offering price, as such information appears in any Preliminary Prospectus and in the Prospectus.

12. Notices and Governing Law. All communications hereunder will be in writing and, except as otherwise provided, will be delivered at, or mailed by certified mail, return receipt requested, or telegraphed to, the following addresses: if to the Underwriter, to Whale Securities Co., L.P., Attention: William G. Walters, 650 Fifth Avenue, New York, New York 10019, with a copy to Tenzer Greenblatt LLP, Attention: Robert J. Mittman, Esq., 405 Lexington Avenue, New York, New York 10174; if to the Company, addressed to it at 909 Third Avenue, 9th Floor, New York, New York 10022, with a copy to Bizar Martin & Taub, LLP, Attention: Sam Schwartz, Esq., 1350 Avenue of the Americas, 29th Floor, New York, New York 10019.

This Agreement shall be deemed to have been made and delivered in New York City and shall be governed as to validity, interpretation. construction, effect and in all other respects by the internal laws of the State of New York. The Company (1) agrees that any legal suit, action or proceeding arising out of or relating to this Agreement shall be instituted exclusively in New York State Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, (2) waives any objection which the Company may have now or hereafter to the venue of any such suit, action or proceeding, and (3) irrevocably consents to the jurisdiction of the New York State Supreme Court, County of New York, and the United States District Court for the Southern District of New York in any such suit, action or proceeding. The Company further agrees to accept and acknowledge service of any and all process which may be served in any such suit, action or proceeding in the New York State Supreme Court, County of New York, or in the United States District Court for the Southern District of New York and agrees that service of process upon the Company mailed by certified mail to the Company's address shall be deemed in every respect effective service of process upon the Company, in any such suit, action or proceeding.

13. Parties in Interest. This Agreement is made solely for the benefit of the Underwriter, the Company and, to the extent expressed, any person controlling the Company or the Underwriter, each officer, director, partner, employee and agent of the Underwriter, the directors of the Company, its officers who have signed the Registration Statement, and their respective executors, administrators, successors and assigns, and, no other person will acquire or have any right under or by virtue of this Agreement. The term "successors and assigns" will not include

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any purchaser of the Shares from the Underwriter, as such purchaser.

If the foregoing is in accordance with your understanding of our agreement, kindly sign and return to us the enclosed duplicates hereof, whereupon it will become a binding agreement between the Company and the Underwriter in accordance with its terms.

Very truly yours,

NETWORK-1 SECURITY SOLUTIONS, INC.

Ву			
		 	 -
Name	<b>:</b> :		
Title:			

New York, N.Y., as of the
date first above written:

# WHALE SECURITIES CO., L.P.

By: Whale Securities Corp., General Partner

Ву	
Name:	
Title:	

#### Exhibit 1.2

WARRANT AGREEMENT dated as of \_\_\_\_\_\_\_, 1998 between Network-1 Security Solutions, Inc., a Delaware corporation (the "Company"), and Whale Securities Co., L.P. (hereinafter referred to as the "Underwriter").

#### WITNESSETH:

WHEREAS, the Company proposes to issue to the Underwriter warrants (the "Warrants") to purchase up to 170,000 (as such number may be adjusted from time to time pursuant to Article 8 of this Agreement) shares (the "Shares") of common stock, par value \$.01 per share (the "Common Stock"), of the Company; and

WHEREAS, the Underwriter has agreed, pursuant to the underwriting agreement (the "Underwriting Agreement") dated \_\_\_\_\_\_\_, 1998 between the Underwriter and the Company, to act as the underwriter in connection with the Company's proposed public offering (the "Public Offering") of 1,700,000 shares of Common Stock (the "Public Shares") at an initial public offering price of \$6.00 per Public Share; and

WHEREAS, the Warrants issued pursuant to this Agreement are being issued by the Company to the Underwriter or to its designees who are officers and partners of the Underwriter or to members of the selling group participating in the distribution of the Public Shares to the public in the Public Offering and/or their respective directors, officers or partners (collectively, the "Designees"), in consideration for, and as part of the Underwriter's compensation in connection with, the Underwriter acting as the Underwriter pursuant to the Underwriting Agreement;

NOW, THEREFORE, in consideration of the premises, the payment by the Underwriter to the Company of ONE HUNDRED DOLLARS (\$100.00), the agreements herein set forth and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

## 1. Grant.

The Underwriter, and/or the Designees are hereby granted the right to purchase, at any time from \_\_\_\_\_\_, 1999 until 5:00 P.M., New York time, on \_\_\_\_\_\_, 2003 (the "Warrant Exercise Term"), up to 170,000 fully-paid and non-assessable Shares at an initial exercise price (subject to adjustment as provided in Article 8 hereof) of \$9.30 per Share.

#### 2. Warrant Certificates.

The warrant certificates delivered and to be delivered pursuant to this Agreement (the "Warrant Certificates") shall be in the form set forth in Exhibit A attached hereto and made a part hereof, with such appropriate insertions, omissions, substitutions and other variations as required or permitted by this Agreement.

#### 3. Exercise of Warrant.

3.1. Cash Exercise. The Warrants initially are exercisable at a price of \$9.30 per Share, payable in cash or by check to the order of the Company, or any combination thereof, subject to adjustment as provided in Article 8 hereof. Upon surrender of the Warrant Certificate with the annexed Form of Election to Purchase duly executed, together with payment of the Exercise Price (as hereinafter defined) for the Shares purchased,

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at the Company's principal offices (currently located at 70 Walnut Street, Wellesley Hills, Massachusetts 02481) the registered holder of a Warrant Certificate ("Holder" or "Holders") shall be entitled to receive a certificate or certificates for the Shares so purchased. The purchase rights represented by each Warrant Certificate are exercisable at the option of the Holder thereof, in

whole or in part (but not as to fractional Shares). In the case of the purchase of less than all the Shares purchasable under any Warrant Certificate, the Company shall cancel said Warrant Certificate upon the surrender thereof and shall execute and deliver a new Warrant Certificate of like tenor for the balance of the Shares purchasable thereunder.

3.2. Cashless Exercise. At any time during the Warrant Exercise Term, the Holder may, at the Holder's option, exchange, in whole or in part, the Warrants represented by such Holder's Warrant Certificate (a "Warrant Exchange"), into the number of Shares determined in accordance with this Section 3.2, by surrendering such Warrant Certificate at the principal office of the Company or at the office of its transfer agent, accompanied by a notice stating such Holder's intent to effect such exchange, the number of Warrants to be so exchanged and the date on which the Holder requests that such Warrant Exchange occur (the "Notice of Exchange"). The Warrant Exchange shall take place on the date specified in the Notice of Exchange or, if later, the date the Notice of Exchange is received by the Company (the "Exchange Date"). Certificates for the Shares issuable upon such Warrant Exchange and, if applicable, a new Warrant

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Certificate of like tenor representing the Warrants which were subject to the surrendered Warrant Certificate and not included in the Warrant Exchange, shall be issued as of the Exchange Date and delivered to the Holder within three (3) days following the Exchange Date. In connection with any Warrant Exchange, the Holder shall be entitled to subscribe for and acquire (i) the number of Shares (rounded to the next highest integer) which would, but for the Warrant Exchange, then be issuable pursuant to the provision of Section 3.1 above upon the exercise of the Warrants specified by the Holder in its Notice of Exchange (the "Total Number") less (ii) the number of Shares equal to the quotient obtained by dividing (a) the product of the Total Number and the existing Exercise Price (as hereinafter defined) by (b) the Market Price (as hereinafter defined) of a Public Share on the day preceding the Warrant Exchange. "Market Price" at any date shall be deemed to be the last reported sale price, or, in case no such reported sales takes place on such day, the average of the last reported sale prices for the last three (3) trading days, in either case as officially reported by the principal securities exchange on which the Common Stock is listed or admitted to trading or as reported in the NASDAQ National market System, or, if the Common Stock is not listed or admitted to trading on any national securities exchange or quoted on the NASDAQ National Market System, the closing bid price as furnished by (i) the National Association of Securities Dealers, Inc. through NASDAQ or (ii) a similar organization if NASDAQ is no longer reporting such information.

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#### 4. Issuance of Certificates.

Upon the exercise of the Warrants, the issuance of certificates for the Shares purchased shall be made forthwith (and in any event within three (3) business days thereafter) without charge to the Holder thereof including, without limitation, any tax which may be payable in respect of the issuance thereof, and such certificates shall (subject to the provisions of Article 5 hereof) be issued in the name of, or in such names as may be directed by, the Holder thereof; provided, however, that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any such certificates in a name other than that of the Holder and the Company shall not be required to issue or deliver such certificates unless or until the person or persons requesting the issuance thereof shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid.

The Warrant Certificates and the certificates representing the Shares shall be executed on behalf of the Company by the manual or facsimile signature of the present or any future Chairman or Vice Chairman of the Board of Directors, Chief Executive Officer or President or Vice President of the Company under its corporate seal reproduced thereon, attested to by the manual or facsimile signature of the present or any future Secretary or Assistant Secretary of the Company. Warrant Certificates shall be dated the date of execution by the Company

upon initial issuance, division, exchange, substitution or transfer.

Upon exercise, in part or in whole, of the Warrants, certificates representing the Shares shall bear a legend substantially similar to the following:

"The securities represented by this certificate have not been registered for purposes of public distribution under the Securities Act of 1933, as amended (the "Act"), and may not be offered or sold except (i) pursuant to an effective registration statement under the Act, (ii) to the extent applicable, pursuant to Rule 144 under the Act (or any similar rule under such Act relating to the disposition of securities), or (iii) upon the delivery by the holder to the Company of an opinion of counsel, reasonably satisfactory to counsel to the Company, stating that an exemption from registration under such Act is available."

#### 5. Restriction on Transfer of Warrants.

The Holder of a Warrant Certificate, by the Holder's acceptance thereof, covenants and agrees that the Warrants are being acquired as an investment and not with a view to the distribution thereof, and that the Warrants may not be sold, transferred, assigned, hypothecated or otherwise disposed of, in whole or in part, for a period of one (1) year from the date hereof, except to the Designees.

#### 6. Price.

6.1. Initial and Adjusted Exercise Price. The initial exercise price of each Warrant shall be \$9.30 per Share. The adjusted exercise price per Share shall be the price which shall result from time to time from any and all adjustments of the initial exercise price per Share in accordance with the provisions of Article 8 hereof.

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6.2. Exercise Price. The term "Exercise Price" herein shall mean the initial exercise price or the adjusted exercise price, depending upon the context.

## 7. Registration Rights.

- 7.1. Registration Under the Securities Act of 1933. None of the Warrants or Shares have been registered for purposes of public distribution under the Securities Act of 1933, as amended (the "Act").
- 7.2. Registrable Securities. As used herein the term "Registrable Security" means each of the Warrants, the Shares and any shares of Common Stock issued upon any stock split or stock dividend in respect of such Shares; provided, however, that with respect to any particular Registrable Security, such security shall cease to be a Registrable Security when, as of the date of determination, (i) it has been effectively registered under the Act and disposed of pursuant thereto, (ii) it has ceased to be outstanding or (iii) such Registrable Security may be sold within 60 days under Rule 144(k) (without limitation or restriction as to quantity or timing and without registration under the Act); provided however, that a security which ceases to become a Registrable Security as a result of clause (iii) shall become a Registrable Security if at any time thereafter it is not eligible to be sold pursuant to Rule 144(k) and shall thereafter only cease to be a Registrable Security under the conditions specified in clause (i) or (ii) or if registration under the Act is no longer required for the subsequent public distribution of such security. The term "Registrable Securities" means any

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and/or all of the securities falling within the foregoing definition of a "Registrable Security." In the event of any merger, reorganization, consolidation, recapitalization or other change in corporate structure affecting the Common Stock, such adjustment shall be made in the definition of

"Registrable Security" as is appropriate in order to prevent any dilution or enlargement of the rights granted pursuant to this Article 7.

## 7.3. Piggyback Registration.

(a) If, at any time during the seven years following the effective date of the Public Offering, the Company proposes to prepare and file one or more post-effective amendments to the registration statement filed in connection with the Public Offering or any new registration statement or post-effective amendments thereto covering equity or debt securities of the Company, or any such securities of the Company held by its shareholders (in any such case, other than in connection with a merger, acquisition or pursuant to Form S-8 or successor form), (for purposes of this Article 7, collectively, the "Registration Statement"), it will give written notice of its intention to do so by registered mail ("Notice"), at least thirty (30) business days prior to the filing of each such Registration Statement, to all holders of the Registrable Securities. Upon the written request of such a holder (a "Requesting Holder"), made within twenty (20) business days after receipt of the Notice, that the Company include any of the Requesting Holder's Registrable Securities in the proposed Registration Statement, the Company shall, as to each such Requesting Holder, use its best efforts to

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effect the registration under the Act of the Registrable Securities which it has been so requested to register ("Piggyback Registration"), at the Company's sole cost and expense and at no cost or expense to the Requesting Holders (except as provided in Section 7.5(b) hereof). Notwithstanding the provisions of this Section 7.3, the Company shall have the right at any time after it shall have given written notice pursuant to this Section 7.3 (irrespective of whether any written request for inclusion of Registrable Securities shall have already been made) to elect not to file any such proposed Registration Statement, or to withdraw the same after the filing but prior to the effective date thereof.

(b) If the offering with respect to which a Registration Statement is filed is an underwritten secondary offering of the Company's securities and the managing underwriter advises the Company in writing that in its opinion the inclusion of all or a portion of the Registrable Securities requested to be registered, when added to the securities being registered by the Company, will exceed the maximum amount of the Company's securities which can be marketed (i) at a price reasonably related to their current market value, or (ii) without otherwise materially adversely affecting the entire offering, the Company will include in such Registration Statement: (i) first, the securities being sold for the account of the Company; (ii) second, the number of Registrable Securities to be included that, in the opinion of such managing underwriter, can be sold pro rata among the respective holders of such securities on the basis of

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the amount of Registrable Securities then owned by each such holder.

## 7.4. Demand Registration.

(a) At any time during the Warrant Exercise Term, any "Majority Holder" (as such term is defined in Section 7.4(c) below) of the Registrable Securities shall have the right (which right is in addition to the piggyback registration rights provided for under Section 7.3 hereof), exercisable by written notice to the Company (the "Demand Registration Request"), to have the Company prepare and file with the Securities and Exchange Commission (the "Commission"), on one occasion, at the sole expense of the Company (except as provided in Section 7.5(b) hereof), a Registration Statement and such other documents, including a prospectus, as may be necessary (in the opinion of both counsel for the Company and counsel for such Majority Holder), in order to comply with the provisions of the Act, so as to permit a public offering and sale of the Registrable Securities by the holders thereof. The Company shall use its best efforts to cause the Registration Statement to become effective under the Act, so as to permit a public offering and sale of the Registrable Securities by the holders thereof. Once effective, the Company will use its best efforts to maintain the effectiveness of the Registration Statement until the earlier of (i) the date that all of the Registrable Securities have

been sold or (ii) the date that the holders of the Registrable Securities receive an opinion of counsel to the Company that all of the Registrable Securities may be freely traded (without

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limitation or restriction as to quantity or timing and without registration under the Act) under Rule 144(k) promulgated under the Act or otherwise.

- (b) The Company covenants and agrees to give written notice of any Demand Registration Request to all holders of the Registrable Securities within ten (10) business days from the date of the Company's receipt of any such Demand Registration Request. After receiving notice from the Company as provided in this Section 7.4(b), holders of Registrable Securities may request the Company to include their Registrable Securities in the Registration Statement to be filed pursuant to Section 7.4(a) hereof by notifying the Company of their decision to have such securities included within ten (10) days of their receipt of the Company's notice.
- (c) The term "Majority Holder" as used in Section 7.4 hereof shall mean any holder or any combination of holders of Registrable Securities, if included in such holders' Registrable Securities are that aggregate number of shares of Common Stock (including Shares already issued and Shares issuable pursuant to the exercise of outstanding Warrants) as would constitute a majority of the aggregate number of Shares (including Shares already issued and Shares issuable pursuant to the exercise of outstanding Warrants) included in all the Registrable Securities.
- 7.5. Covenants of the Company With Respect to Registration. The Company covenants and agrees as follows:

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(a) In connection with any registration under Section 7.4 hereof, the Company shall file the Registration Statement as expeditiously as possible, but in any event no later than sixty (60) days following receipt of any demand therefor, shall use its best efforts to have any such Registration Statement declared effective at the earliest possible time, and shall furnish each holder of Registrable Securities such number of prospectuses as shall reasonably be requested, provided, however, that the Company may, at any time, delay the filing or delay or suspend the effectiveness of such demand registration or, without suspending such effectiveness, and instruct the Holders not to sell any securities included in such demand registration, (i) if the Company shall have determined upon the written advice of counsel (confirmation of which notice shall be provided to the Holder(s) in writing by such counsel) that the Company would be required to disclose any actions taken or proposed to be taken by the Company in good faith and for valid business reasons, including without limitation, the acquisition or divestiture of assets, which disclosure would have a material adverse effect on the Company or on such actions, or (ii) if required by law, to update the prospectus relating to any such registration to include updated financial statements (a "Suspension Period") by providing the Holder(s) with written notice of such Suspension Period and the reasons therefor; and provided further, that the Suspension Periods, in the aggregate, do not exceed ninety (90) days. The Company shall provide such

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notice as soon as practicable and in any event prior to the commencement of such Suspension Period.

- (b) The Company shall pay all costs, fees and expenses (other than underwriting fees, discounts and nonaccountable expense allowance applicable to the Registrable Securities and the fees and expenses of counsel retained by the holders of Registrable Securities) in connection with all Registration Statements filed pursuant to Sections 7.3 and 7.4(a) hereof including, without limitation, the Company's legal and accounting fees, printing expenses, and blue sky fees and expenses.
- (c) The Company will take all necessary action which may be required in qualifying or registering the Registrable Securities included in the

Registration Statement for offering and sale under the securities or blue sky laws of such states as are reasonably requested by the holders of such securities; provided that the Company shall not be obligated to execute or file any consent to service of process or qualify as a foreign corporation to do business under the laws of any such jurisdiction.

(d) The Company shall indemnify any holder of the Registrable Securities to be sold pursuant to any Registration Statement and any underwriter or person deemed to be an underwriter under the Act and each person, if any, who controls such holder or underwriter or person deemed to be an underwriter within the meaning of Section 15 of the Act or Section 20(a) of the Securities Exchange Act of 1934, as amended ("Exchange Act"),

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against all loss, claim, damage, expense or liability (including all expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which any of them may become subject under the Act, the Exchange Act or otherwise, arising from such registration statement to the same extent and with the same effect as the provisions pursuant to which the Company has agreed to indemnify the Underwriter as set forth in Section 7 of the Underwriting Agreement and to provide for just and equitable contribution as set forth in Section 8 of the Underwriting Agreement.

(e) Any holder of Registrable Securities to be sold pursuant to a registration statement, and such Holder's successors and assigns, shall severally, and not jointly, indemnify, the Company, its officers and directors and each person, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act, against all loss, claim, damage or expense or liability (including all expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which they may become subject under the Act, the Exchange Act or otherwise, arising from information furnished by or on behalf of such holder, or such Holder's successors or assigns, for specific inclusion in such Registration Statement to the same extent and with the same effect as the provisions pursuant to which the Underwriter has agreed to indemnify the Company as set forth in Section 7 of the Underwriting Agreement and to provide for just and equitable

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contribution as set forth in Section 8 of the Underwriting Agreement.

- (f) Nothing contained in this Agreement shall be construed as requiring any Holder to exercise the Warrants held by such Holder prior to the initial filing of any registration statement or the effectiveness thereof.
- (g) The Company shall promptly deliver copies of all correspondence between the Commission and the Company, its counsel or auditors and all memoranda relating to discussions with the Commission or its staff with respect to the Registration Statement to each holder of Registrable Securities included for such registration in such Registration Statement pursuant to Section 7.3 hereof or Section 7.4 hereof requesting such correspondence and memoranda and to the managing underwriter, if any, of the offering in connection with which such Holder's Registrable Securities are being registered and shall permit each holder of Registrable Securities and such underwriter to do such reasonable investigation, upon reasonable advance notice, with respect to information contained in or omitted from the Registration Statement as it deems reasonably necessary to comply with applicable securities laws or rules of the National Association of Securities Dealers, Inc. Such investigation shall include access to books, records and properties and opportunities to discuss the business of the Company with its officers and independent auditors, all to such reasonable extent and at such reasonable times and as often as

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any such holder of Registrable Securities or underwriter shall reasonably request.

- 8.1. Computation of Adjusted Price. In case the Company shall at any time after the date hereof pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to all existing holders of Common Stock, then upon such dividend or distribution the Exercise Price in effect immediately prior to such dividend or distribution shall forthwith be reduced to a price determined by dividing:
- (a) an amount equal to the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution multiplied by the Exercise Price in effect immediately prior to such dividend or distribution, by
- (b) the total number of shares of Common Stock outstanding immediately after such issuance or sale.

For the purposes of any computation to be made in accordance with the provisions of this Section 8.1, the Common Stock issuable by way of dividend or other distribution on any stock of the Company shall be deemed to have been issued immediately after the opening of business on the date following the date fixed for the determination of stockholders entitled to receive such dividend or other distribution.

8.2. Subdivision and Combination. In case the Company shall at any time subdivide or combine the outstanding shares of Common Stock, the Exercise Price shall forthwith be

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proportionately decreased in the case of subdivision or increased in the case of combination.

- 8.3. Adjustment in Number of Shares. Upon each adjustment of the Exercise Price pursuant to the provisions of this Article 8, the number of Shares issuable upon the exercise of each Warrant shall be adjusted to the nearest full number by multiplying a number equal to the Exercise Price in effect immediately prior to such adjustment by the number of Shares issuable upon exercise of the Warrants immediately prior to such adjustment and dividing the product so obtained by the adjusted Exercise Price.
- 8.4. Reclassification, Consolidation, Merger, etc. In case of any reclassification or change of the outstanding shares of Common Stock (other than a change in par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), or in the case of any consolidation of the Company with, or merger of the Company into, another corporation (other than a consolidation or merger in which the Company is the surviving corporation and which does not result in any reclassification or change of the outstanding shares of Common Stock, except a change as a result of a subdivision or combination of such shares or a change in par value, as aforesaid), or in the case of a sale or conveyance to another corporation of the property of the Company as an entirety, the Holders shall thereafter have the right to purchase the kind and number of shares of stock and other securities and property receivable upon such reclassification, change, consolidation,

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merger, sale or conveyance as if the Holders were the owners of the shares of Common Stock underlying the Warrants immediately prior to any such events at a price equal to the product of (x) the number of shares of Common Stock issuable upon exercise of the Holder's Warrants and (y) the Exercise Price in effect immediately prior to the record date for such reclassification, change, consolidation, merger, sale or conveyance as if such Holders had exercised the Warrants.

- 8.5. Determination of Outstanding Shares of Common Stock. The number of shares of Common Stock at any one time outstanding shall include the aggregate number of shares of Common Stock issued and the aggregate number of shares of Common Stock issuable upon the exercise of options, rights, warrants and upon the conversion or exchange of convertible or exchangeable securities.
- 8.6. Dividends and Other Distributions with Respect to Outstanding Securities. In the event that the Company shall at any time prior to

the exercise of all Warrants make any distribution of its assets to holders of its Common Stock as a liquidating or a partial liquidating dividend, then the holder of Warrants who exercises its Warrants after the record date for the determination of those holders of Common Stock entitled to such distribution of assets as a liquidating or partial liquidating dividend shall be entitled to receive for the Warrant Price per Warrant, in addition to each share of Common Stock, the amount of such distribution (or, at the option of the Company, a sum equal to the value of any such assets at the time of such distribution

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as determined by the Board of Directors of the Company in good faith) which would have been payable to such holder had he been the holder of record of the Common Stock receivable upon exercise of his Warrant on the record date for the determination of those entitled to such distribution. At the time of any such dividend or distribution, the Company shall make appropriate reserves to ensure the timely performance of the provisions of this Subsection 8.6.

8.7. Subscription Rights for Shares of Common Stock or Other Securities. In the case that the Company or an affiliate of the Company shall at any time after the date hereof and prior to the exercise of all the Warrants issue any rights, warrants or options to subscribe for shares of Common Stock or any other securities of the Company or of such affiliate to all the shareholders of the Company, the Holders of unexercised Warrants on the record date set by the Company or such affiliate in connection with such issuance of rights, warrants or options shall be entitled, in addition to the shares of Common Stock or other securities receivable upon the exercise of the Warrants, to receive such rights, warrants or options shall be entitled, in addition to the shares of Common Stock or other securities receivable upon the exercise of the Warrants, to receive such rights at the time such rights, warrants or options that such Holders would have been entitled to receive had they been, on such record date, the holders of record of the number of whole shares of Common Stock then issuable upon exercise of their outstanding Warrants (assuming for purposes of this Section 8.7),

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that the exercise of the Warrants is permissible immediately upon issuance).

9. Exchange and Replacement of Warrant Certificates.

Each Warrant Certificate is exchangeable without expense, upon the surrender thereof by the registered Holder at the principal executive office of the Company, for a new Warrant Certificate of like tenor and date representing in the aggregate the right to purchase the same number of securities in such denominations as shall be designated by the Holder thereof at the time of such surrender.

Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of any Warrant Certificate, and, in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it, and reimbursement to the Company of all reasonable expenses incidental thereto, and upon surrender and cancellation of the Warrant Certificate, if mutilated, the Company will make and deliver a new Warrant Certificate of like tenor, in lieu thereof.

## 10. Elimination of Fractional Interests.

The Company shall not be required to issue certificates representing fractions of Shares, nor shall it be required to issue scrip or pay cash in lieu of fractional interests, it being the intent of the parties that all fractional interests shall be eliminated by rounding any fraction up to the nearest whole number of Shares.

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## 11. Reservation and Listing of Securities.

The Company shall at all times reserve and keep available out of its authorized shares of Common Stock, solely for the purpose of issuance upon the

exercise of the Warrants, such number of shares of Common Stock as shall be issuable upon the exercise thereof. The Company covenants and agrees that, upon exercise of the Warrants and payment of the Exercise Price therefor, all Shares issuable upon such exercise shall be duly and validly issued, fully paid, non-assessable and not subject to the preemptive rights of any shareholder. As long as the Warrants shall be outstanding, the Company shall use its best efforts to cause all shares of Common Stock issuable upon the exercise of the Warrants to be listed on or quoted by NASDAQ or listed on such national securities exchange, in the event the Common Stock is listed on a national securities exchange.

#### 12. Notices to Warrant Holders.

Nothing contained in this Agreement shall be construed as conferring upon the Holder or Holders the right to vote or to consent or to receive notice as a shareholder in respect of any meetings of shareholders for the election of directors or any other matter, or as having any rights whatsoever as a shareholder of the Company. If, however, at any time prior to the expiration of the Warrants and their exercise, any of the following events shall occur:

(a) the Company shall take a record of the holders of its shares of Common Stock for the purpose of entitling them to receive a dividend or distribution

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payable otherwise than in cash, or a cash dividend or distribution payable otherwise than out of current or retained earnings, as indicated by the accounting treatment of such dividend or distribution on the books of the Company; or

- (b) the Company shall offer to all the holders of its Common Stock any additional shares of capital stock of the Company or securities convertible into or exchangeable for shares of capital stock of the Company, or any option, right or warrant to subscribe therefor; or
- (c) a dissolution, liquidation or winding up of the Company (other than in connection with a consolidation or merger) or a sale of all or substantially all of its property, assets and business as an entirety shall be proposed; or
- (d) reclassification or change of the outstanding shares of Common Stock (other than a change in par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), consolidation of the Company with, or merger of the Company into, another corporation (other than a consolidation or merger in which the Company is the surviving corporation and which does not result in any reclassification or change of the outstanding shares of Common Stock, except a change as a result of a subdivision or combination of such shares or a change

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in par value, as aforesaid), or a sale or conveyance to another corporation of the property of the Company as an entirety is proposed; or

(e) The Company or an affiliate of the Company shall propose to issue any rights to subscribe for shares of Common Stock or any other securities of the Company or of such affiliate to all the shareholders of the Company;

then, in any one or more of said events, the Company shall give written notice to the Holder or Holders of such event at least fifteen (15) days prior to the date fixed as a record date or the date of closing the transfer books for the determination of the shareholders entitled to such dividend, distribution, convertible or exchangeable securities or subscription rights, options or warrants, or entitled to vote on such proposed dissolution, liquidation, winding up or sale. Such notice shall specify such record date or the date of closing the transfer books, as the case may be. Failure to give such notice or any

defect therein shall not affect the validity of any action taken in connection with the declaration or payment of any such dividend or distribution, or the issuance of any convertible or exchangeable securities or subscription rights, options or warrants, or any proposed dissolution, liquidation, winding up or sale.

#### 13. Notices.

All notices, requests, consents and other communications hereunder shall be in writing and shall be deemed to have

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been duly made when delivered, or mailed by registered or certified mail, return receipt requested:

- (a) If to a registered Holder of the Warrants, to the address of such Holder as shown on the books of the Company; or
- (b) If to the Company, to the address set forth in Section 3 of this Agreement or to such other address as the Company may designate by notice to the Holders.
- 14. Supplements and Amendments.

The Company and the Underwriter may from time to time supplement or amend this Agreement without the approval of any Holders of Warrant Certificates in order to cure any ambiguity, to correct or supplement any provision contained herein which may be defective or inconsistent with any provisions herein, or to make any other provisions in regard to matters or questions arising hereunder which the Company and the Underwriter may deem necessary or desirable and which the Company and the Underwriter deem not to adversely affect the interests of the Holders of Warrant Certificates.

## 15. Successors.

All the covenants and provisions of this Agreement by or for the benefit of the Company and the Holders inure to the benefit of their respective successors and assigns hereunder.

#### 16. Termination.

This Agreement shall terminate at the close of business on \_\_\_\_\_\_.

2006. Notwithstanding the foregoing, this Agree-

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ment will terminate on any earlier date when all Warrants have been exercised and all the Shares issuable upon exercise of the Warrants have been resold to the public; provided, however, that the provisions of Section 7 shall survive any termination pursuant to this Section 16 until the close of business on \_\_\_\_\_\_\_, 2009.

## 17. Governing Law.

This Agreement and each Warrant Certificate issued hereunder shall be deemed to be a contract made under the laws of the State of New York and for all purposes shall be construed in accordance with the laws of said State.

# 18. Benefits of This Agreement.

Nothing in this Agreement shall be construed to give to any person or corporation other than the Company and the Underwriter and any other registered holder or holders of the Warrant Certificates, Warrants or the Shares any legal or equitable right, remedy or claim under this Agreement; and this Agreement shall be for the sole and exclusive benefit of the Company and the Underwriter and any other holder or holders of the Warrant Certificates, Warrants or the Shares.

#### 19. Counterparts.

This Agreement may be executed in any number of counterparts and each

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed, as of the day and year first above written.

[SEAL]	NETWORK-1 SECURITY SOLUTIONS, INC.			
	Ву:			
	Name: Title:			
Attest:				
	WHALE SECURITIES CO., L.P.			
	By: Whale Securities Corp., General Partner			
	By:			
	Name: Title:			
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## EXHIBIT A

THE WARRANTS REPRESENTED BY THIS CERTIFICATE AND THE OTHER SECURITIES ISSUABLE UPON EXERCISE THEREOF HAVE NOT BEEN REGISTERED FOR PURPOSES OF PUBLIC DISTRIBUTION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), AND MAY NOT BE OFFERED OR SOLD EXCEPT (i) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT, (ii) TO THE EXTENT APPLICABLE, PURSUANT TO RULE 144 UNDER SUCH ACT (OR ANY SIMILAR RULE UNDER SUCH ACT RELATING TO THE DISPOSITION OF SECURITIES), OR (iii) UPON THE DELIVERY BY THE HOLDER TO THE COMPANY OF AN OPINION OF COUNSEL, REASONABLY SATISFACTORY TO COUNSEL FOR THE COMPANY, STATING THAT AN EXEMPTION FROM REGISTRATION UNDER SUCH ACT IS AVAILABLE.

THE TRANSFER OR EXCHANGE OF THE WARRANTS REPRESENTED BY THIS CERTIFICATE IS RESTRICTED IN ACCORDANCE WITH THE WARRANT AGREE- MENT REFERRED TO HEREIN.

EXERCISABLE ON OR BEFORE
5:00 P.M., NEW YORK TIME, \_\_\_\_\_\_, 2003

No. W-1

170,000 Warrants

WARRANT CERTIFICATE

This Warrant Certificate certifies that Whale Securities Co., L.P. or registered assigns, is the registered holder of 170,000 Warrants to purchase, at any time from \_\_\_\_\_\_, 1999 until 5:00 P.M. New York City time on \_\_\_\_\_\_, 2003 ("Expiration Date"), up to 170,000 fully-paid and non-assessable shares ("Shares") of common stock, par value \$.01 per share (the "Common Stock"), of Network-1 Security Solutions, Inc., a Delaware corporation (the "Company"), at the initial exercise price, subject to adjustment in certain events (the "Exercise Price"), of \$9.30 per Share upon surrender of this Warrant Certificate and payment of the Exercise Price at an office or agency of the Company, but

subject to the conditions set forth herein and in the warrant agreement dated as of \_\_\_\_\_\_\_, 1998 between the Company and Whale Securities Co., L.P. (the "Warrant Agreement"). Payment of the Exercise Price may be made in cash, or by certified or official bank check in New York Clearing House funds payable to the order of the Company, or any combination thereof.

No Warrant may be exercised after 5:00 P.M., New York City time, on the Expiration Date, at which time all Warrants evidenced hereby, unless exercised prior thereto, shall thereafter be void.

The Warrants evidenced by this Warrant Certificate are part of a duly authorized issue of Warrants issued pursuant to the Warrant Agreement, which Warrant Agreement is hereby incorporated by reference in and made a part of this instrument and is hereby referred to in a description of the rights,

limitation of rights, obligations, duties and immunities thereunder of the Company and the holders (the words "holders" or "holder" meaning the registered holders or registered holder) of the Warrants.

The Warrant Agreement provides that upon the occurrence of certain events, the Exercise Price and the type and/or number of the Company's securities issuable thereupon may, subject to certain conditions, be adjusted. In such event, the Company will, at the request of the holder, issue a new Warrant Certificate evidencing the adjustment in the Exercise Price and the number and/or type of securities issuable upon the exercise of the Warrants; provided, however, that the failure of the Company to issue such new Warrant Certificates shall not in any way change, alter, or otherwise impair, the rights of the holder as set forth in the Warrant Agreement.

Upon due presentment for registration of transfer of this Warrant Certificate at an office or agency of the Company, a new Warrant Certificate or Warrant Certificates of like tenor and evidencing in the aggregate a like number of Warrants shall be issued to the transferee(s) in exchange for this Warrant Certificate, subject to the limitations provided herein and in the Warrant Agreement, without any charge except for any tax, or other governmental charge imposed in connection therewith.

Upon the exercise of less than all of the Warrants evidenced by this Certificate, the Company shall forthwith issue to the holder hereof a new Warrant Certificate representing such number of unexercised Warrants.

The Company may deem and treat the registered holder(s) hereof as the absolute owner(s) of this Warrant Certificate (notwithstanding any notation of ownership or other writing hereon made by anyone), for the purpose of any exercise hereof, and of any distribution to the holder(s) hereof, and for all other purposes, and the Company shall not be affected by any notice to the contrary.

All terms used in this Warrant Certificate which are defined in the Warrant Agreement shall have the meanings assigned to them in the Warrant Agreement.

IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed under its corporate seal.

Dated:	, 1998	NETWORK-1 SECURITY SOLUTIONS, INC
[SEAL]	By:	
	Name: Title:	:
Attest:	_	
	-	

# [FORM OF ELECTION TO PURCHASE]

The undersigned hereby irrevocably elects to exercise the right, represented by this Warrant Certificate, to purchase \_\_\_\_\_\_ shares of Common Stock and herewith tenders in payment for such securities cash or a certified or official bank check payable in New York Clearing House Funds to the order of

the terms hereof	rurity Solutions, Inc. in the amount of f. The undersigned requests that a cer gistered in the name of , whose address	tificate for such
and that such Co	gistered in the name of, whose addresertificate be delivered to	, whose address is
	<del>·</del>	
	~.	
Dated:	Signature:	
	(Signature must conform in	
	respects to name of holder a	ıs
	specified on the face of the Warrant Certificate.)	
	warrant confinence.	
-		
-		
	Insert Social Security or Other Identifying Number of Holder)	
	identifying Number of Holder)	
	[FORM OF ASSIGNMENT]	
(To be e	executed by the registered holder if su	ach holder
desir	res to transfer the Warrant Certificate.	.)
	LUE RECEIVED	
hereby sells, ass	signs and transfers unto	
	me and address of transferee)	
this Warrant Ce	ertificate, together with all right, title a	and interest therein,
and does hereby	y irrevocably constitute and appoint _ hin Warrant Certificate on the books of	, Attorney, to
	full power of substitution.	of the within-named
Company, with	run power of substitution.	
Dated:	Signature:	
	(Signature must conform i	 in all
	respects to name of holder	
	specified on the face of the	
	Warrant Certificate)	
(Insert Social So	ecurity or Other nber of Assignee)	

# CERTIFICATE OF DESIGNATION OF SERIES C PREFERRED STOCK

N	IETWO!	RK-1 SE	CURIT	Y SOLU	TIONS,	INC
		Section  Law of				

We, the undersigned, Avi A. Fogel, being the President and Chief Executive Officer of Network-1 Security Solutions, Inc. ("Corporation") and Robert Russo, Secretary of the Corporation, hereby certify pursuant to Section 151(g) of the General Corporation Law of the State of Delaware that:

- 1. The name of the Corporation is Network-1 Security Solutions, Inc.
- 2. The Certificate of Incorporation of the Corporation was filed with the Department of State on July 13, 1990, an Amended and Restated Certificate of Incorporation was filed with the Department of State on February 28, 1994, and Certificates of Amendment to the Certificate of Incorporation were filed with the Department of State on March 16, 1994, May 18, 1998, and July 20, 1998, respectively.
- 3. Pursuant to authority thereby vested in the Board of Directors by Article IV of the Corporation's Amended and Restated Certificate of Incorporation, the Board of Directors adopted the following resolutions on October \_\_\_\_\_, 1998 establishing a series of 750,000 shares of Preferred Stock of the Corporation:

RESOLVED, that pursuant to Section 151(g) of the General Corporation Law of the State of Delaware and Article IV of the Corporation's Amended and Restated Certificate of Incorporation, there is hereby established a series of the Corporation's Preferred Stock having the following terms and designations:

Section 1. Designation and Amount. The shares of such series having a par value of \$0.01 per share shall be designated as "Series C Convertible Preferred Stock" (the "Series C Preferred Stock") and the number of shares constituting such series shall be 750,000. The relative rights, preferences and limitations of the Series C Preferred Stock shall be in all respects identical, share for share, to the Common Stock of the Corporation, except as otherwise provided herein.

Section 2. Dividends. The holders of Series C Preferred Stock shall be entitled to receive dividends and other distributions when, as and if declared by the Board of Directors out

of funds legally available for such purposes. If at any time the Corporation declares any dividend or other distribution on its Common Stock and there are shares of its Series C Preferred Stock issued and outstanding, then a dividend or other distribution shall also be declared on the Series C Preferred Stock payable at the same time and on the same terms and conditions, entitling each holder of Series C Preferred Stock to receive the dividend or distribution such holder would have received had such holder converted the Series C Preferred Stock as of the record date for determining stockholders entitled to receive such dividend or distribution.

Section 3. Voting Rights. Except as otherwise provided by the General Corporation Law of the State of Delaware, the Series C Preferred Stock and the Common Stock of the Corporation shall vote as one class, with the holder of each share of Series C Preferred Stock entitled to the number of votes equal to the number of shares of Common Stock into which such share of Series C Preferred Stock could have been converted as of the record date for determining the stockholders having notice of and to vote at such meeting.

Section 4. Reacquired Shares. Any shares of the Series C Preferred Stock redeemed or purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and cancelled promptly after the acquisition thereof. All such shares shall upon their cancellation become authorized but unissued shares of Preferred Stock, unless otherwise provided for in the Certificate of Incorporation of the Corporation, and may be reissued as part of a new series of Preferred Stock to be created by resolution or resolutions of the Board of Directors, subject to the conditions or restrictions on issuance set forth herein.

## Section 5. Liquidation, Dissolution or Winding Up.

(A) Upon the liquidation, dissolution or winding up of the Corporation, no distribution shall be made (i) to the holders of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series C Preferred Stock unless, prior thereto, the holders of Series C Preferred Stock shall have received a liquidation preference of \$5.25 per share, plus an amount equal to unpaid dividends thereon, if any, including accrued dividends, whether or not declared, to the date of such payment or (ii) to the holders of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series C Preferred Stock, except distributions made ratably on the Series C Preferred Stock and all other such parity stock in proportion to the total amounts to which the holders of all such shares are entitled upon such liquidation, dissolution or winding up. For purposes of this Certificate, (1) the sale, conveyance, exchange or transfer of all or substantially all of the property and assets of the Corporation, or (2) the consolidation or merger of the Corporation with or into any other corporation (in which the Corporation is not the surviving entity) shall be deemed to be a liquidation, dissolution or winding up of the Corporation within the meaning of this Section 5(A) if so elected by a majority of the outstanding shares of Series C Preferred Stock, in their sole discretion.

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For purposes of this Certificate the term "junior stock" shall mean the Common Stock and any other class or series of shares of the Corporation hereafter authorized over which Series C Preferred Stock has preference or priority in the payment of dividends or in the distribution of assets on any liquidation, dissolution or winding up of the Corporation.

(B) Upon liquidation, dissolution or winding up of the Corporation, and after full payment as provided in Section 5(A) above, the holders of Series C Preferred Stock shall not be entitled to any further participation in any distribution of assets by the Corporation.

Section 6. Conversion.

- (A) Subject to the provisions for adjustments hereinafter set forth, each share of the Series C Preferred Stock shall be convertible, at any time hereafter, at the option of the holder thereof, in the manner hereinafter set forth, into one fully paid and non-assessable share of Common Stock of the Corporation.
- (B) The number of shares of Common Stock into which each share of Series C Preferred Stock is convertible shall be adjusted from time to time as follows:
  - (i) In case the Company shall (a) subdivide the outstanding shares of its Common Stock into a larger number of shares, (b) combine the outstanding shares of its Common Stock into a smaller number of shares or (c) issue by reclassification of its Common Stock any shares of the Company, each holder of Series C Preferred Stock shall thereafter be entitled upon conversion to receive for each share of Series C Preferred Stock held by him the number of shares of the Company which he would have owned or have been entitled to receive after the happening of one of the events described above in this clause (i) had such share of Series C Preferred Stock been converted immediately prior to the happening of such event. Such adjustment shall become effective on the day next following the day upon which such subdivision, combination or reclassi-fication shall become effective.
  - (ii) In case the Company shall consolidate or merge into or with another corporation, or in case the Company shall sell or convey

to any other person or persons all or substantially all the property of the Company, or in case the Company shall effect a capital reorganization or reclassification of its Common Stock, each holder of Series C Preferred Stock then outstanding shall have the right thereafter to convert each share of Series C Preferred Stock held by him into the kind and amount of shares

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of stock, other securities, cash, and property receivable upon such consolidation, merger, sale, conveyance, reorganization or reclassification by a holder of the number of shares of Common Stock into which such share might have been converted immediately prior to such consolidation, merger, sale, conveyance, reorganization or reclassification and shall no other conversion rights. In any such event, effective provision shall be made, in the certificate or articles or incorporation of the resulting or surviving corporation or otherwise or in any contracts of sale and conveyance so that, so far as appropriate and as nearly as reasonably may be, the provisions set forth herein for the protection of the conversion rights of the shares of Series C Preferred Stock shall thereafter be made applicable.

Such adjustments shall be made successively whenever any event listed above shall occur.

- (C) In the event that at any time, as a result of an adjustment made pursuant to this Section 6, the holder of any share of Series C Preferred Stock thereafter converted shall become entitled to receive any shares of capital stock or other securities of the Company other than shares of its Common Stock, thereafter the number of such other shares of capital stock or other securities so receivable upon conversion of Series C Preferred Stock shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to shares of the Company's Common Stock contained in this Section 6, and the provisions of this certificate with respect to shares of the Company's Common Stock shall apply, to the extent applicable, on like terms to any such other shares of capital stock or warrants or other securities.
- (D) If any adjustment in the number of shares of Common Stock into which each share of the Series C Preferred Stock may be converted as required pursuant to this Section 6 would result in an increase or decrease of less than 1% in the number of shares of Common Stock into which each share of the Series C Preferred Stock is then convertible, the amount of any such adjustment shall be carried forward, and adjustment with respect thereto shall be made at the time of and together with any subsequent adjustment which, together with such amount and any other amount or amounts so carried forward, shall aggregate at least 1% of the number of shares of Common Stock into which each share of the Series C Preferred Stock is then convertible. All calculations under this Section 6(D) shall be made to the nearest one-hundredth of a share.
- (E) The Board of Directors may, but shall not be required to, increase the number of shares of Common Stock into which each share of the Series C Preferred Stock may be converted, in addition to the adjustment required by this Section 6, as shall be determined by it (as evidenced by a resolution of the Board of Directors) to be advisable in order to avoid or diminish any income deemed to be received by any holder of the Common Stock or Series C Preferred Stock

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resulting from any dividend or distribution of stock or issuance of rights or warrants to purchase or subscribe for stock or from any event treated as such for federal income tax purposes.

(F) The holder of any shares of the Series C Preferred Stock may exercise his or its option to convert such shares into shares of Common Stock by surrendering for such purpose to the Corporation, at its principal office or at such other office or agency maintained by the Corporation for that purpose, a certificate or certificates representing the shares of Series C Preferred Stock to be converted accompanied by a written notice stating that such holder elects to convert all or a specified whole number of such shares in accordance with the

provisions of this Section 6 and specifying the name or names in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. In case such notice shall specify a name or names other than that of such holder, such notice shall be accompanied by payment of all transfer taxes payable upon the issuance of shares of Common Stock in such name or names. As promptly as practicable, and in any event within five business days after the surrender of such certificates and the receipt of such notice relating thereto and, if applicable, payment of all transfer taxes, the Corporation shall deliver or cause to be delivered (a) certificates representing the number of validly issued, fully paid and non-assessable shares of Common Stock of the Corporation to which the holder of the Series C Preferred Stock so converted shall be entitled and (b) if less than the full number of shares of the Series C Preferred Stock evidenced by the surrendered certificate or certificates, of like tenor, for the number of shares evidenced by such surrendered certificate or certificates less the number of shares converted. Such conversions shall be deemed to have been made at the close of business on the date of giving of such notice and of such surrender of the certificate or certificates representing the shares of the Series C Preferred Stock to be converted so that the rights of the holder thereof shall cease except for the right to receive Common Stock of the Corporation in accordance herewith, and the converting holder shall be treated for all purposes as having become the record holder of such Common Stock of the Corporation at such time.

- (G) Upon conversion of any shares of the Series C Preferred Stock, the holder thereof shall not be entitled to receive any accumulated, accrued or unpaid dividends in respect of the shares so converted, provided that such holder shall be entitled to receive any dividends on such shares of the Series C Convertible Preferred Stock declared prior to such conversion if such holder held such shares on the record date fixed for the determination of holders of the Series C Preferred Stock entitled to receive payment of such dividend.
- (H) The transfer of shares of Series C Preferred Stock by any holder shall constitute an automatic conversion of such shares into Common Stock in accordance with 6(A) hereof; provided, that, the holder of Series C Preferred Stock may transfer such shares without triggering such automatic conversion if a transfer is made to (i) the holder's spouse, children or issue, trustee of trusts or custodians for his benefit or for the benefit of his spouse, children or issue, or (ii) any entity controlled by or under common control with such holder or his spouse, children or issue or (iii) by operation of law pursuant to rights of testacy and intestacy.

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(I) The Corporation shall at all times reserve and keep available out of its authorized Common Stock the full number of shares of Common Stock of the Corporation or other securities issuable upon the conversion of all outstanding shares of the Series C Preferred Stock.

Section 7. Adjustments for Consolidation, Merger, etc. Prior to the consummation of a consolidation or merger or a sale of substantially all of the property of the Company as described in Section 6 (B)(ii) hereof, each corporation, including this Corporation, which may be required to deliver any stock, securities cash or other property to the holders of shares of the Series C Preferred Stock shall assume, by written instrument delivered to each transfer agent of the Series C Preferred Stock, the obligation to deliver to such holder such shares of stock, securities, cash or other property to which, in accordance with the provisions of Section 6, such holder may be entitled and each such corporation shall have furnished to each such transfer agent or person acting in a similar capacity, including the Corporation, an opinion of counsel for such corporation, stating that such assumption agreement is legal, valid and binding upon such corporation.

Section 8. Reports as to Adjustments. Whenever the number of shares of Common stock into which the shares of the Series C Preferred Stock are convertible is adjusted as provided in Section 6, the Corporation shall (A) promptly compute such adjustment and furnish to each transfer agent or person acting in a similar capacity, including the Corporation, for the Series C Preferred Stock, a certificate, signed by a principal financial officer of the Corporation, setting forth the number of shares of Common Stock into which each share of Series C Preferred Stock is convertible as a result of such adjustment and the computation thereof and when such adjustment will become effective and (B) promptly mail to the holders of record of the outstanding shares of the

Series C Preferred Stock a notice stating that the number of shares into which the shares of Series C Preferred Stock are convertible has been adjusted and setting forth the new number of shares into which each share of the Series C Preferred Stock is convertible as a result of such adjustment and when such adjustment will become effective.

Section 9. Notices of Corporate Action. In the event of:

(A) any taking by the Corporation of a record of the holders of its Common Stock for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a dividend payable solely in cash or shares of common stock) or other distribution, or any right or warrant to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right;

(B) any capital reorganization, reclassification or recapitalization of the Corporation (other than a subdivision or combination of the outstanding shares of its common stock), any consolidation or merger involving the Corporation and any other person (other than a consolidation or merger with a wholly-owned subsidiary of the Corporation, provided that the Corporation is the surviving or the continuing corporation and no change occurs in the common

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stock), or any transfer of all or substantially all the assets of the Corporation to any other person; or

(C) any voluntary or involuntary dissolution, liquidation or winding up of the Corporation;

then, and in each such case, the Corporation shall cause to be mailed to each transfer agent for the shares of the Series C Preferred stock and to the holders of record of the outstanding shares of the Series C Preferred Stock, at least 20 days (or 10 days in case of any event specified in clause (A) above) prior to the applicable record or effective date thereinafter specified, a notice stating (i) the date or expected date on which any such record is to be taken for the purpose of such dividend, distribution or right or (ii) the date or expected date to which any such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of record of Common Stock shall be entitled to exchange their shares of Common Stock for the securities or other property deliverable upon such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding up. Such notice shall also state whether such transaction will result in any adjustment in the number of shares of Common Stock into which each share of the Series C Preferred Stock shall be convertible upon such adjustment and when such adjustment will become effective. The failure to give any notice required by this Section 9, or any defect therein, shall not affect the legality or validity of any such action requiring such notice.

IN WITNESS WHEREOF, the undersigned, being the President and Secretary of the Corporation, do hereby execute this Certificate of Designation, here declaring that this is their free act and deed and that the facts stated herein are true and accordingly have hereunto set their hands as of this \_\_\_\_\_ day of October, 1998.

NETWORK-1 SECURITY SOLUTIONS, INC.

By	:
ATTEST:	Avi A. Fogel, President and Chief Executive Officer
Robert Russo, Secretary	-

#### EXHIBIT 4.2

## NETWORK-1 SECURITY SOLUTIONS, INC. STOCK OPTION PLAN (AS AMENDED)

#### 1. Purpose of Plan

The purpose of the Stock Option Plan (the "Plan") is to provide an incentive to Key Employees, Directors and Consultants (as hereinafter defined) of Network-1 Security Solutions, Inc. (the "Company") who are in a position to contribute materially to the long term success of the Company, to increase their interest in the Company's welfare and to aid in attracting and retaining Key Employees, Directors and Consultants of outstanding ability.

#### 2. Definitions

Unless otherwise specified or unless the context otherwise requires, the following terms, as used in this Stock Option Plan, have the following meanings:

- a) "Affiliate" means a corporation which for purposes of Section 422 of the Code, is a parent or subsidiary of the Company, direct or indirect, each as defined in Section 424 of the Code.
- b) "Board of Directors" or "Board" means the Board of Directors of the Company.
- c) "Code" means the United States Internal Revenue Code of 1986, as such may be amended from time to time.
- d) "Compensation Committee" means the committee to which the Board of Directors delegates the power to act under or pursuant to the provisions of the Plan, or the Board of Directors if no committee is selected.
- e) "Company" means Network-1 Security Solutions, Inc., a Delaware corporation.
- f) "Consultant" means any person retained by the Company or any of its Affiliates to render services on a consultant basis.
- g) "Disability" or "Disabled" means permanent and total disability as defined in Section 22(e)(3) of the Code.
- h) "Incentive Stock Option" means an Option, as identified below, which is designated by the Compensation Committee as such and which, when granted, is intended to be an "incentive stock option" as defined in section 422 of the Code.

- i) "Key Employee" means an employee of the Company or of an Affiliate, (including, without limitation, an employee who is also serving as an officer or director of the Company or of an Affiliate), designated by the Board of Directors or the Committee to be eligible to be granted one or more options under the Plan.
- j) "Non-Qualified Stock Option" shall mean an Option, as defined below, which is designated by the Compensation Committee as such and which, when granted, is not intended to be an "Incentive Stock Option" as defined in Code Section 422.
  - k) "Option" means a right or option granted under the Plan.
  - 1) "Option Agreement" means an agreement between the Company and a

Participant executed and delivered pursuant to the Plan.

m) "Participant" means a Key Employee to whom one or more Incentive Stock Options or Non-Qualified Stock Options are granted under the Plan and an employee, nonemployee director, consultant or independent contractor ("Non Key Employee") to whom one or more Non-Qualified Stock Options are granted under the Plan.

- n) "Plan" means this Stock Option Plan.
- o) "Shares" means the following shares of the capital stock of the Company as to which Options have been or may be granted under the Plan; 1,050,000 authorized and unissued common stock, (\$0.01) par value, including fractional shares, any shares of capital stock into which the shares are changed or for which they are exchanged within the provisions of Section 9 of the Plan.

#### 3. Aggregate Number of Shares

1,050,000 Shares of the Company's common stock, par value \$.01 per share (the "Common Stock"), shall be the aggregate number of Shares which may be issued under this Plan. Notwithstanding the foregoing, in the event of any change in the outstanding shares of Common Stock of the Company by reason of a stock dividend, stock split, combination of shares, recapitalization, merger, consolidation, transfer of assets, reorganization, conversion or what the Compensation Committee deems in its sole discretion to be similar circumstances, the aggregate number and kind of Shares which may be issued under this Plan shall be appropriately adjusted in a manner determined in the sole discretion of the Compensation Committee. Reacquired shares of the Company's Common Stock, as well as unissued shares, may be used for the

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purpose of this Plan. Shares of the Company's Common Stock subject to Options which have terminated unexercised, either in whole or in part, shall be available for future Options granted under this Plan.

## 4. Class of Persons Eligible to Receive Options

- (a) All Key Employees, as defined in Section 2 above, including officers of the Company and of any present or future Company Affiliate, all members of the Board of Directors of the Company who are not Key Employees (the "Nonemployee Directors") and Consultants to the Company and to any present or future Company Affiliate are eligible to receive an Option or Options under this Plan. The individuals who shall, in fact, receive an Option or Options under this Plan (the "Participants") shall be selected by the Compensation Committee, in its sole discretion, except as otherwise specified in Sections 5 and 6 hereof.
- (b) Notwithstanding any other provision of this Plan, the aggregate fair market value of the Common Stock as to which a holder may exercise Incentive Stock Options may not exceed \$100,000 in any calendar year.

#### 5. Administration of Plan

- (a) This Plan shall be administered by the Compensation Committee of the Board of Directors. Prior to the time at which the stock of the Company is required to be registered under Section 12 of the Securities Exchange Act of 1934 ("Registration Date"), the Compensation Committee shall be composed of all or certain members of the Board of Directors as the Board shall determine. From and after the Registration Date, the Compensation Committee shall be composed of a minimum of two members of the Board of Directors as the Board shall determine, each of whom shall be a "disinterested person" within the meaning of Rule 16b-3 (c) (2) (i) under the Securities Exchange Act of 1934, as amended, of the Securities and Exchange Commission (the "SEC") or any future corresponding rule.
- (b) The Compensation Committee shall, in addition to its other authority and subject to the provisions of this Plan, determine the Participants, whether the Option shall be an Incentive Stock Option or

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the number of Shares to be subject to each of the options, the time or times at which the Options shall be granted, the rate of Option exercisability, and, subject to Section 6 hereof, the price at which each of the Options is exercisable and the duration of the Option.

- (c) The Compensation Committee shall adopt such rules for the conduct of its business and administration of this Plan as it considers desirable. A majority of the members of the Compensation Committee shall constitute a quorum for all purposes. The vote or written consent of a majority of the members of the Compensation Committee on a particular matter shall constitute the act of the Compensation Committee on such matter. The Compensation Committee shall have the right to construe the Plan and the Options issued pursuant to it, to correct defects and omissions and to reconcile inconsistencies to the extent necessary to effectuate the Plan and the Options issued pursuant to it, and such action shall be final, binding and conclusive upon all parties concerned. No member of the Compensation Committee or the Board of Directors shall be liable for any act or omission (whether or not negligent) taken or omitted in good faith, or for the exercise of any authority or discretion granted in connection with the Plan to the Compensation Committee or the Board of Directors, or for the acts or omissions of any other members of the Compensation Committee or the Board of Directors. Subject to the numerical limitations on Compensation Committee membership set forth in Section 5(a) hereof, the Board of Directors may at any time appoint additional members of the Compensation Committee and may at any time remove any member of the Compensation Committee with or without cause. Vacancies in the Compensation Committee, however caused, may be filled by the Board of Directors, if it so desires.
- 6. Incentive Stock Options and Non-Qualified Stock Options
  - (a) Options issued pursuant to this Plan may be either Incentive Stock
    Options granted pursuant to Section 6(b) hereof or Non-Qualified Stock
    Options granted pursuant to Section 6(c) hereof, as determined by the
    Compensation Committee. The Compensation Committee may grant both an
    Incentive Stock Option and a Non-Qualified Stock Option to the same
    person, or more than one of each type of Option to the same person,
    subject to the restrictions set forth in (b) and (c) below.

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The Option price for Incentive Stock Options issued under this Plan shall be equal at least to the fair market value (as defined below) of the Company's Common Stock on the date of the grant of the Option as determined by the Compensation Committee in accordance with its interpretation of the requirements of Section 422 of the Code and the regulations thereunder. The Option price for Non-Qualified Stock Options issued under this Plan may, in the sole discretion of the Compensation Committee, be less than the fair market value of the Common Stock on the date of the grant of the Option. If an Incentive Stock Option is granted to an individual who, at the time the Option is granted, owns stock possessing more than 10% of the total combined voting power of all shares of stock of the Company or any parent or subsidiary corporation of the Company (a "10% Shareholder"), the Option price shall not be less than 110% of the fair market value of the Company's Common Stock on the date of grant of the option. The fair market value of the Company's Common Stock on any particular date shall mean the last reported sale price of a share of the Company's Common Stock on any stock exchange on which such stock is then listed or admitted to trading, or on the Nasdaq Stock Market, on such date, or if no sale took place on such day, the last such date on which a sale took place, or if the Common Stock is not then quoted on the Nasdaq Stock Market, or listed or admitted to trading on any stock exchange, the average of the bid and asked prices in the

over-the-counter market on such date, or if none of the foregoing, a price determined by the Compensation Committee.

(b) Subject to the authority of the Compensation Committee set forth in Section 5(b) hereof, Incentive Stock Options issued pursuant to this Plan shall be issued only to Key Employees of the Company substantially in the form set forth in Appendix A hereof, which form is hereby incorporated by reference and made a part hereof, and shall contain substantially the terms and conditions set forth therein. Nonemployee Directors and Consultants shall not be eligible for Incentive Stock Options. Incentive Stock Options shall not be exercisable after the expiration of ten years (five years in the case of 10% Shareholders) from the date such Options are granted, unless terminated earlier under the terms of the Option. At the time of the grant of an Incentive Stock Option hereunder, the Compensation Committee may, in its discretion, modify or amend any of the Option terms contained in Appendix

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A for any particular Participant, provided that the Option as modified or amended satisfies the requirements of Section 422 of the Code and the regulations thereunder. Each of the Options granted pursuant to this Section 6(b) is intended, if possible, to be an "Incentive Stock Option" as that term is defined in Section 422 of the Code and the regulations thereunder. In the event this Plan or any Option granted pursuant to this Section 6(b) is in any way inconsistent with the applicable legal requirements of the Code or the regulations thereunder for an Incentive Stock Option, this Plan and such Option shall be deemed automatically amended as of the date hereof to conform to such legal requirements, if such conformity may be achieved by amendment.

- (c) Subject to the authority of the Compensation Committee set forth in Section 5(b) hereof, Non-Qualified Stock Options issued pursuant to this Plan shall be issued to Participants of the Company substantially in the form set forth in Appendix B hereof, which form is hereby incorporated by reference and made a part hereof, and shall contain substantially the terms and conditions set forth therein. Non-Qualified Stock Options shall expire not more than ten years after the date they are granted, unless terminated earlier under the Option terms. At the time of granting a Non-Qualified Stock Option hereunder, the Compensation Committee may, in its discretion, modify or amend any of the Option terms contained in Appendix B for any particular Participant.
- (d) Neither the Company nor any of its current or future parent, subsidiaries or affiliates, nor their officers, directors, shareholders, stock option plan committees, the Compensation Committees, employees or agents shall have any liability to any optionee in the event: (i) an Option granted pursuant to Section 6(b) hereof does not qualify as an "Incentive Stock Option" as that term is used in Section 422 of the Code and the regulations thereunder; (ii) any optionee does not obtain the tax treatment pertaining to an Incentive Stock Option; or (iii) any Option granted pursuant to Section 6(c) hereof is an "Incentive Stock Option."

## 7. Exercise of Option and Issue of Stock

Options shall be exercised by giving written notice to the Company. Such written notice shall: (1) be signed by the person exercising the Option, (2) state the number of shares and with respect to which the Option, if any, is being exercised, (3)

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contain the legend required by Appendix A and B, page 5, paragraph (b) therein, and (4) specify a date (other than a Saturday, Sunday or legal holiday) not less than five (5) nor more than ten (10) days after the date of such written notice,

as the date on which the Shares will be taken up and payment made therefor. The conditions specified above may be waived in the sole discretion of the Company. Such tender and conveyance shall take place at the principal office of the Company during ordinary business hours, or at such other hour and place agreed upon by the Company and the person(s) exercising the Option. On the date specified in such written notice (which date may be extended by the Company in order to comply with any law or regulation which requires the Company to take any action with respect to the Option Shares prior to issuance thereof) the Company shall accept payment for the Option Shares (in the forms set forth below) and shall deliver to the person(s) exercising the Option in exchange therefor a certificate or certificates for fully paid non-assessable shares. In the event of any failure to take up and pay for the number of Shares specified in such written notice of the exercise of the Option on the date set forth therein (or on the extended date as above provided) the exercise of the Option shall terminate with respect to such number of Shares, but shall continue with respect to the remaining Shares covered by the Option and not yet acquired pursuant thereto.

The payment may be in any of the following forms: (a) cash, which may be evidenced by a check; (b) certificates representing shares of Common Stock of the Company, which will be valued by the Secretary of the Company at the fair market value per share of the Company's Common Stock (as determined in accordance with the Plan) on the last trading day immediately preceding the date of delivery of such certificates to the Company, accompanied by an assignment of the stock to the Company, or (c) any combination of cash and Common Stock of the Company valued as provided in clause (b). Any assignment of stock shall be in a form and substance satisfactory to the Secretary of the Company, including guarantees of signature(s) and payment of all transfer taxes if the Secretary deems such guarantees necessary or desirable or determines that such taxes are due and payable.

# 8. Assignability and Transferability of Option

By its terms, an Option granted to a Participant shall not be transferable by the Participant otherwise than by will or the laws of descent and distribution, and shall be exercisable, during the Participant's lifetime only by such Participant and Participant's legal guardian or custodian in the event of disability. Any attempted transfer, assignment, pledge, hypothecation or other disposition of any Option or of any rights granted thereunder, otherwise than by will or the laws of descent

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and distribution, or the levy of any attachment or similar process upon an Option or such rights, shall be null and void.

#### 9. Adjustments Upon Changes in Capitalization

In the event that the authorized and outstanding shares of Common Stock of the Company are changed into or exchanged for a different number or kind of shares or other securities of the Company or of another corporation by reason of any reorganization, merger, consolidation, recapitalization, reclassification, change in par value, stock split-up, combination of shares or dividend payable in capital stock, or the like, appropriate adjustments to prevent dilution or enlargement of the rights granted to or available for, Participants, shall be made in the manner and kind of shares for the purpose of which Options may be granted under the Plan, and, in addition, appropriate adjustment shall be made in the number and kind of shares and in the option price per share subject to outstanding Options. No such adjustment shall be made which shall, within the meaning of Section 424 of the Code, constitute such a modification, extension or renewal of an Incentive Stock Option as to cause it to be considered as the grant of a new Incentive Stock Option.

# 10. Modification, Amendment, Suspension and Termination

Options shall not be granted pursuant to this Plan after the expiration of ten years from the date the Plan is adopted by the Board of Directors of the Company. The Board of Directors reserves the right at any time, and from time to time, to modify or amend this Plan in any way, or to suspend or terminate it, effective as of such date, which date may be either before or after the taking of such action, as may be specified by the Board of Directors; provided,

however, that such action shall not affect Options granted under the Plan prior to the actual date on which such action occurred. If a modification or amendment of this Plan is required by the Code or the regulations thereunder to be approved by the shareholders of the Company in order to permit the granting of Incentive Stock Options pursuant to the modified or amended Plan, such modification or amendment shall also be approved by the shareholders of the Company in such manner as is prescribed by the Code and the regulations thereunder. If the Board of Directors voluntarily submits a proposed modification, amendment, suspension or termination for shareholder approval, such submission shall not require any future modifications, amendments, suspensions or terminations (whether or not relating to the same provision or subject matter) to be similarly submitted for shareholder approval.

#### 11. Effectiveness of Plan

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This Plan shall become effective on the date of its adoption by the Company's Board of Directors, subject however to approval by the holders of the Company's Common Stock in the manner as prescribed in the Code and the regulations thereunder. Options may be granted under this Plan prior to obtaining shareholder approval, provided such Options shall not be exercisable before

such shareholder approval is obtained.

### 12. Indemnification of Compensation Committee

In addition to such other rights of indemnification as they may have as directors or as members of the Compensation Committee, the members of the Compensation Committee (or the directors acting with respect to the Plan if there is no Compensation Committee) shall be indemnified by the Company against all reasonable expenses, including attorneys fees, actually and reasonably incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal therein to which they or any of them may be a party by reason of any action taken by them as members of the Compensation Committee and against all amounts paid by them in settlement thereof (provided such settlement is approved by legal counsel selected by the Company) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such action, suit or proceeding that such Compensation Committee member is liable for gross negligence or willful misconduct in the performance of his or her duties. To receive such indemnification, a Compensation Committee member must first offer in writing to the Company the opportunity, at its own expense, to defend any such action, suit or proceeding.

#### 13. General Conditions

- (a) Nothing contained in this Plan or any Option granted pursuant to this Plan shall confer upon any employee the right to continue in the employ of the Company or any present or future parent, affiliated or subsidiary corporation or interfere in any way with the rights of the Company or any present or future parent, affiliated or subsidiary corporation to terminate his employment in any way.
- (b) Corporate action constituting an offer of stock for sale to any employee under the terms of the Options to be granted hereunder shall be deemed complete as of the date when the Compensation Committee authorizes the grant of the Option to the employee, regardless of when the Option is actually delivered to the employee or acknowledged or agreed to by him.

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(c) If the Company's Common Stock has not been registered under Section 12 of the Securities Exchange Act of 1934, the exercise of an Option will not be effective unless and until the Option holder executes and delivers to the Company a Stock Restriction Agreement, in the form on

file in the office of the Secretary of the Company.

(d) The use of the masculine pronoun shall include the feminine gender whenever appropriate.

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#### APPENDIX A

#### INCENTIVE STOCK OPTION

Го:
Name
Address
Date of Grant:

You are hereby granted an option\* (the "Option"), effective as of the date hereof, to purchase \_\_\_\_ shares of Common Stock, par value \$.01 per share ("Common Stock"), of Network-1 Security Solutions, Inc. (the "Company") at a price of \_\_\_ per share pursuant to the Company's 1996 Stock Option Plan adopted by the Company's Board of Directors and Stockholders effective March 7, 1996, as amended (the "Plan"). Your option price is intended to equal at least the fair market value of the Company's Common Stock as of the date hereof; provided, however, that if, at the time this option is granted, you own stock possessing more than 10% of the total combined voting power of all shares of stock of the Company or any parent or subsidiary (an "Affiliate") of the Company (a "10% Shareholder"), your option price is intended to be at least 110% of the fair market value of the Company's Common Stock as of the date hereof.

Your Option may first be exercised on and after [one year from the date of grant], but not before that time. Your Option may be exercised either: (i) on and prior to the Termination Date (as hereinafter defined), for up to \_\_\_\_\_% of the total number of shares subject to the Option minus the number of shares previously purchased by exercise of the Option (as adjusted for any change in the outstanding shares of the Common Stock of the Company, by reason of a stock dividend, stock split, combination of shares, recapitalization, merger, consolidation, transfer of assets, reorganization, conversion or what the Compensation Committee deems in its sole discretion to be similar circumstances); or (ii) each succeeding year thereafter and prior to the Termination Date (as hereinafter defined) for up to an additional [twenty (20%) percent] of the total number of shares subject to the Option minus the number of shares previously purchased by exercise of the Option (as adjusted for any change in the outstanding shares of the Common Stock of the Company by reason of a stock dividend, stock split, combination of shares, recapitalization, merger, consolidation, transfer of assets, reorganization, conversion or what the Compensation Committee deems

in its sole discretion to be similar circumstances). No fractional shares shall be issued or delivered.

This Option shall terminate and is not exercisable after the expiration of

<sup>\*</sup> This Incentive Stock Option is to be issued only to Key Employees of the Company. Nonemployee Directors and Consultants are not eligible for this option.

ten years from the date of its grant (five years from the date of grant if, at the time of the grant, you are a 10% Shareholder) (the "Scheduled Termination Date"), except if terminated earlier as hereinafter provided (the "Termination Date").

In the event of a "change of control" (as hereafter defined) of the Company, your Option may, from and after the date of the change of control, and notwithstanding the second paragraph of this option, be exercised for up to 100% of the total number of shares then subject to the Option minus the number of shares previously purchased upon exercise of the Option (as adjusted for any changes in the outstanding Common Stock by reason of a stock dividend, stock split, combination of shares, recapitalization, merger, consolidation, transfer of assets, reorganization, conversion or what the Compensation Committee deems in its sole discretion to be similar circumstances).

A "change of control" shall be deemed to have occurred upon the happening of any of the following events:

- 1. A change within a twelve-month period in a majority of the members of the Board of Directors of the Company;
- 2. A change within a twelve-month period in the holders of more than 50% of the outstanding voting stock of the Company; or
- 3. Any other event deemed to constitute a "change in control" by the Compensation Committee.

You may exercise your option as set forth in Section 7 of the Plan.

If the Company's Common Stock has not been registered under Section 12 of the Securities Exchange Act of 1934, the exercise of your option will not be effective unless and until you execute and deliver to the Company a Stock Restriction Agreement, in the form on file in the office of the Secretary of the Company.

Your Option will, to the extent not previously exercised by

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you, terminate thirty (30) days after the date on which your employment by the Company or Affiliate of the Company is terminated, whether such termination is voluntary or not, other than by reason of disability as defined in Section 22(e)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), and the regulations thereunder, or death, in which case your Option will terminate six (6) months from the date of termination of employment due to disability or death (but in no event later than the Scheduled Termination Date). After the date your employment is terminated, as aforesaid, you may exercise this Option only for the number of shares which you had a right to purchase and did not purchase on the date your employment terminated. If you are employed by an Affiliate of the Company, your employment shall be deemed to have terminated on the date your employer ceases to be an Affiliate of the Company, unless you are on that date transferred to the Company or another Affiliate of the Company. Your employment shall not be deemed to have terminated if you are transferred from the Company to an Affiliate, or vice versa, or from one Affiliate to another Affiliate.

Anything in this Option to the contrary notwithstanding, your option will terminate immediately if your employment is terminated for cause (as determined by the Company in its sole and absolute discretion). Your employment shall be deemed to have been terminated for cause if you are terminated due to, among other reasons, (i) your willful misconduct or gross negligence, (ii) your material breach of any agreement with the Company or (iii) your failure to render satisfactory services to the Company.

If you die while employed by the Company or an Affiliate of the Company, your legatee(s), distributee(s), executor(s) or administrator(s), as the case may be, may, at any time within six (6) months after the date of your death (but in no event later than the Scheduled Termination Date), exercise the Option as to any shares which you had a right to purchase and did not purchase during your lifetime. If your employment with the Company, or an Affiliate is terminated by reason of your becoming disabled (within the meaning of Section 22(e)(3) of the Code and the regulations thereunder), you or your legal guardian or custodian

may at any time within six (6) months after the date of such termination (but in no event later than the Scheduled Termination Date), exercise the Option as to any shares which you had a right to purchase and did not purchase prior to such termination. Your legatee, distributee, executor, administrator, guardian or custodian must present proof of his authority satisfactory to the Company prior to being allowed to exercise this Option.

This Option is not transferable otherwise than by will or the laws of descent and distribution, and is exercisable during your lifetime only by you, including, for this purpose, your legal

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guardian or custodian in the event of disability. Until the Option price has been paid in full pursuant to due exercise of this Option and the purchased shares are delivered to you, you do not have any rights as a shareholder of the Company. The Company reserves the right not to deliver to you the shares purchased by virtue of the exercise of this Option during any period of time in which the Company deems, in its sole discretion, that such delivery would violate a federal, state, local or securities exchange rule, regulation or law.

Notwithstanding anything to the contrary contained herein, this Option is not exercisable until all of the following events occur and during the following periods of time:

- (a) Until the Plan pursuant to which this Option is granted is approved by the shareholders of the Company in the manner prescribed by the Code and the regulations thereunder;
- (b) Until this Option and the optioned shares are approved and/or registered with such federal, state and local regulatory bodies or agencies and securities exchanges as the Company may deem necessary or desirable; or
- (c) During any period of time in which the Company deems that the exercisability of this Option, the offer to sell the shares optioned hereunder, or the sale thereof, may violate a federal, state, local or securities exchange rule, regulation or law, or may cause the Company to be legally obligated to issue or sell more shares than the Company is legally entitled to issue or sell.

The following two paragraphs shall be applicable if, on the date of exercise of this Option, the Common Stock to be purchased pursuant to such exercise has not been registered under the Securities Act of 1933, as amended, and under applicable state securities laws, and shall continue to be applicable for so long as such registration has not occurred:

(a) The optionee hereby agrees, warrants and represents that he will acquire the Common Stock to be issued hereunder for his own account for investment purposes only, and not with a view to, or in connection with, any resale or other distribution of any of such shares, except as hereafter permitted. The optionee further agrees that he will not at any time make any offer, sale, transfer, pledge or other disposition of such Common Stock to be issued hereunder without an effective registration statement under the Securities Act of 1933, as amended, and under any applicable state securities laws or an opinion of counsel acceptable to the Company to the effect that the proposed transaction will be exempt from such registration The optionee shall execute such instruments, representations, acknowledgements and agreements as the Company

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may, in its sole discretion, deem advisable to avoid any violation of federal, state, local or securities exchange rule, regulation or law.

(b) The certificates for Common Stock to be issued to the optionee hereunder shall bear the following legend:

"The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, or under applicable state securities laws. The shares have been acquired for investment

and may not be offered, sold, transferred, pledged or otherwise disposed of without an effective registration statement under the Securities Act of 1933, as amended, and under any applicable state securities laws or an opinion of counsel acceptable to the Company that the proposed transaction will be exempt from such registration."

The foregoing legend shall be removed upon registration of the legended shares under the Securities Act of 1933, as amended, and under any applicable state laws or upon receipt of any opinion of counsel acceptable to the Company that said registration is no longer required.

The sole purpose of the agreements, warranties, representations and legend set forth in the two immediately preceding paragraphs is to prevent violations of the Securities Act of 1933, as amended, and any applicable state securities laws

It is the intention of the Company and you that this option shall, if possible, be an "Incentive Stock Option" as that term is used in Section 422 of the Code and the regulations thereunder. In the event this Option is in any way inconsistent with the legal requirements of the Code or the regulations thereunder for an "Incentive Stock Option" this Option shall be deemed automatically amended as of the date hereof to conform to such legal requirements, if such conformity may be achieved by amendment.

This Option shall be subject to the terms of the Plan in effect on the date this Option is granted, which terms are hereby incorporated herein by reference and made a part hereof. In the event of any conflict between the terms of this Option and the terms of the Plan in effect on the date of this Option, the terms of the Plan shall govern. This Option constitutes the entire understanding between the Company and you with respect to the subject matter hereof and no amendment, modification or waiver of this Option, in whole or in part, shall be binding upon the Company unless in writing and signed by an appropriate officer of the Company. This Option and the performances of the parties hereunder shall be construed in accordance with and governed by the laws of

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the State of New York without regard to principles of conflict of law.

Please sign the copy of this Option and return it to the Company, thereby indicating your understanding of and agreement with its terms and conditions.

NETWORK-1 SECURITY SOLUTIONS, INC.

Ву	
the Network-1 Sec	rledge receipt of a copy of the foregoing Stock Option and arity Solutions, Inc. 1996 Stock Option Plan, and having read reby signify my understanding of, and my agreement with, their is.
(Signature)	(Date)
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	APPENDIX B

NON-QUALIFIED STOCK OPTION

To: \_

Name

	Address	 	
Date of Grant:		 	 

You are hereby granted an option (the "Option"), effective as of the date hereof, to purchase \_\_\_\_\_\_ shares of Common Stock, par value \$.01 per share ("Common Stock"), of Network-1 Security Solutions, Inc. (the "Company") at a price of \_\_\_\_ per share pursuant to the Company's 1996 Stock Option Plan adopted by the Company's Board of Directors and Stockholders effective March 7, 1996 (the "Plan"). [Your option price is intended to equal at least the fair market value of the Company's Common Stock as of the date hereof.]

Your Option may first be exercised on and after one (1) year from the date of Grant, but not before that time. Your Option may be exercised either: (i) on and prior to the Termination Date (as hereinafter and after defined), for up to % of the total number of shares subject to the Option minus the number of shares previously purchased by exercise of the Option (as adjusted for any change in the outstanding shares of the Common Stock of the Company, by reason of a stock dividend, stock split, combination of shares, recapitalization, merger, consolidation, transfer of assets, reorganization, conversion or what the Compensation Committee deems in its sole discretion to be similar circumstances); or (ii) each succeeding year thereafter and prior to the Termination Date (as hereinafter defined) for up to an additional [twenty (20%) percent] of the total number of shares subject to the Option minus the number of shares previously purchased by exercise of the Option (as adjusted for any change in the outstanding shares of the Common Stock of the Company by reason of a stock dividend, stock split, combination of shares, recapitalization, merger, consolidation, transfer of assets, reorganization, conversion or what the Compensation Committee deems in its sole discretion to be similar circumstances). No fractional shares shall be issued or delivered.

This Option shall terminate and is not exercisable after the expiration of [ten years] from the date of its grant (the "Scheduled Termination Date"), except if terminated earlier as hereinafter provided (the "Termination Date").

In the event of a "change of control" (as hereafter defined) of the Company, your Option may, from and after the date of the change of control, and notwithstanding the second paragraph of this option, be exercised for up to 100% of the total number of shares then subject to the Option minus the number of shares previously purchased upon exercise of the Option (as adjusted for any changes in the outstanding Common Stock by reason of a stock dividend, stock split, combination of shares, recapitalization, merger, consolidation, transfer of assets, reorganization, conversion or what the Compensation Committee deems in its sole discretion to be similar circumstances).

A "change of control" shall be deemed to have occurred upon the happening of any of the following events:

- 1. A change within a twelve-month period in a majority of the members of the Board of Directors of the Company;
- 2. A change within a twelve-month period in the holders of more than 50% of the outstanding voting stock of the Company; or
- 3. Any other event deemed to constitute a "change in control" by the Compensation Committee.

You may exercise your option as set forth in Section 7 of the Plan.

If the Company's Common Stock has not been registered under Section 12 of the Securities Exchange Act of 1934, the exercise of your Option will not be effective unless and until you execute and deliver to the Company a Stock Restriction Agreement, in the form on file in the office of the Secretary of the Company.

Your Option will, to the extent not previously exercised by you, terminate thirty (30) days after the date on which your employment by the Company or a parent or subsidiary corporation (an "Affiliate") of the Company is terminated, whether such termination is voluntary or not, other than by reason of disability as defined in Section 22(e)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), and the regulations thereunder, or death, in which case your Option will terminate six (6) months from the date of termination of employment due to disability or death (but in no event later than the Scheduled Termination Date). After the date your employment is terminated, as aforesaid, you may exercise this Option only for the number of shares which you had a right to purchase and did not purchase on the date your employment terminated. If you are employed by an Affiliate of the Company, your employment shall be deemed to have terminated on the date your employer ceases to be an Affiliate of the Company, unless you are on that date transferred to the Company or another Affiliate of the

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Company. Your employment shall not be deemed to have terminated if you are transferred from the Company to an Affiliate, or vice versa, or from one Affiliate to another Affiliate.

Anything in this Option to the contrary notwithstanding, your Option will terminate immediately if your employment is terminated for cause (as determined by the Company in its sole and absolute discretion). Your employment shall be deemed to have been terminated for cause if you are terminated due to, among other reasons, (i) your willful misconduct or gross negligence, (ii) your material breach of any agreement with the Company or (iii) your failure to render satisfactory services to the Company.

If you die while employed by the Company or an Affiliate of the Company your legatee(s), distributee(s), executor(s) or administrator(s), as the case may be, may, at any time within six (6) months after the date of your death (but in no event later than the Scheduled Termination Date), exercise the Option as to any shares which you had a right to purchase and did not purchase during your lifetime. If your employment with the Company or an Affiliate is terminated by reason of your becoming disabled (within the meaning of Section 22(e)(3) of the Code and the regulations thereunder), you or your legal guardian or custodian may at any time within six (6) months after the date of such termination (but in no event later than the Scheduled Termination Date), exercise the Option as to any shares which you had a right to purchase and did not purchase prior to such termination. Your legatee, distributee, executor, administrator, guardian or custodian must present proof of his authority satisfactory to the Company prior to being allowed to exercise this Option.

This Option is not transferable otherwise than by will or the laws of descent and distribution, and is exercisable during your lifetime only by you, including, for this purpose, your legal guardian or custodian in the event of disability. Until the Option price has been paid in full pursuant to due exercise of this Option and the purchased shares are delivered to you, you do not have any rights as a shareholder of the Company. The Company reserves the right not to deliver to you the shares purchased by virtue of the exercise of this Option during any period of time in which the Company deems, in its sole discretion, that such delivery would violate a federal, state, local or securities exchange rule, regulation or law.

Notwithstanding anything to the contrary contained herein, this Option is not exercisable until all the following events occur and during the following periods of time:

(a) Until the Plan pursuant to which this Option is granted is approved by the shareholders of the Company in the

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manner prescribed by the Code and the regulations thereunder;

(b) Until this Option and the optioned shares are approved and/or

registered with such federal, state and local regulatory bodies or agencies and securities exchanges as the Company may deem necessary or desirable; or

(c) During any period of time in which the Company deems that the exercisability of this Option, the offer to sell the shares optioned hereunder, or the sale thereof, may violate a federal, state, local or securities exchange rule, regulation or law, or may cause the Company to be legally obligated to issue or sell more shares than the Company is legally entitled to issue or sell.

The following two paragraphs shall be applicable if, on the date of exercise of this Option, the Common Stock to be purchased pursuant to such exercise has not been registered under the Securities Act of 1933, as amended, and under applicable state securities laws, and shall continue to be applicable for so long as such registration has not occurred:

- (a) The optionee hereby agrees, warrants and represents that he will acquire the Common Stock to be issued hereunder for his own account for investment purposes only, and not with a view to, or in connection with, any resale or other distribution of any of such shares, except as hereafter permitted. The optionee further agrees that he will not at any time make any offer, sale, transfer, pledge or other disposition of such Common Stock to be issued hereunder without an effective registration statement under the Securities Act of 1933, as amended, and under any applicable state securities laws or an opinion of counsel acceptable to the Company to the effect that the proposed transaction will be exempt from such registration. The optionee shall execute such instruments, representations, acknowledgements and agreements as the Company may, in its sole discretion, deem advisable to avoid any violation of federal, state, local, or securities exchange rule, regulation or law.
- (b) The certificates for Common Stock to be issued to the optionee hereunder shall bear the following legend:

"The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, or under applicable state securities laws. The shares have been acquired for investment and may not be offered, sold, transferred, pledged or otherwise disposed of without an effective registration statement under the Securities Act of 1933, as amended, and under any applicable state securities laws or an opinion of counsel

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acceptable to the Company that the proposed transaction will be exempt from such registration."

The foregoing legend shall be removed upon registration of the legended shares under the Securities Act of 1933, as amended, and under any applicable state laws or upon receipt of any opinion of counsel acceptable to the Company that said registration is no longer required.

The sole purpose of the agreements, warranties, representations and legend set forth in the two immediately preceding paragraphs is to prevent violations of the Securities Act of 1933, as amended, and any applicable state securities laws

It is the intention of the Company and you that this Option shall not be an "Incentive Stock Option" as that term is used in Section 422 of the Code and the regulations thereunder.

This Option shall be subject to the terms of the Plan in effect on the date this Option is granted, which terms are hereby incorporated herein by reference and made a part hereof. In the event of any conflict between the terms of this Option and the terms of the Plan in effect on the date of this Option, the terms of the Plan shall govern. This Option constitutes the entire understanding between the Company and you with respect to the subject matter hereof and no amendment, modification or waiver of this Option, in whole or in part, shall be binding upon the Company unless in writing and signed by an appropriate officer of the Company. This Option and the performances of the parties hereunder shall be construed in accordance with and governed by the laws of the State of New York without regard to principles of conflict of laws.

Please sign the copy of this Option and return it to the Company, thereby indicating your understanding of and agreement with its terms and conditions.

# NETWORK-1 SECURITY SOLUTIONS, INC.

I	By:	
the Network-1 S	ecurity Solutions, Inc. 1996 hereby signify my understa	f the foregoing Stock Option and Stock Option Plan, and having read nding of and my agreement with their
	5	
(Signature)	(Date)	

#### Exhibit 10.22

October 1, 1998

Corey Horowitz, President CMH Capital Management Corp. 885 Third Avenue, Suite 2900 New York, New York 10016

Dear Corey:

This letter agreement shall confirm that CMH Capital Management Corp. ("CMH") will provide financial advisory services to Network-1 Security Solutions, Inc. ("Network-1"), from the date hereof through December 31, 1998, which services shall include, but not be limited to, advice related to strategic business relationships, structuring financings, attendance at meetings with potential strategic partners and general advice related to Network-1 and its products. In consideration of such services to be provided by CMH, Network-1 shall issue to CMH 10,000 shares of its common stock.

If the foregoing correctly sets forth our agreement, please sign below indicating your acceptance.

Very truly yours,

Network-1 Security Solutions, Inc.

By: /s/ Avi A. Fogel

Avi A. Fogel, President and Chief Executive Officer

\_\_\_\_\_

Agreed and Accepted:

CMH Capital Management Corp.

By: /s/ Corey M. Horowitz

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Corey M. Horowitz, President

#### Exhibit 10.23

#### AGREEMENT

AGREEMENT, dated as of October 20, 1998, by and among NETWORK-1 SECURITY SOLUTIONS, INC. (the "Company"), a Delaware corporation with offices at 70 Walnut Street, Wellesley Hills, Massachusetts 02481 and the noteholders signatory hereto (collectively, the "Noteholders").

WHEREAS, the Underwriter, Whale Securities Co., L.P., has conditioned proceeding with the Company's initial public offering ("IPO") on the Noteholders exchanging outstanding promissory notes in the principal amount plus accrued interest of \$2,954,888 (the "Notes") into Series C Preferred Stock, par value \$.01 per share, of the Company (the "Preferred Stock"), upon the terms and subject to the conditions set forth herein:

WHEREAS, subject to the Company's consummation of its IPO, the Noteholders and the Company desire that the Noteholders exchange the Notes into an aggregate of 562,836 shares of Preferred Stock on the terms and subject to the conditions set forth herein. The Preferred Stock issuable upon exchange of the Notes is referred to herein as the "Preferred Shares."

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

### ARTICLE I.

### Issuance of Shares for Notes

- 1.1 Debt Exchange Agreement. Subject to the Company's consummation of the IPO, at the Closing provided for in Section 1.2 hereof, the Company will issue to each Noteholder and, subject to the terms and conditions of this Agreement, each Noteholder will exchange the Notes for the number of Preferred Shares set forth in Exhibit A hereto based on an exchange price of \$5.25 per share (the "Debt Exchange"). The form of Certificate of Designation describing the terms of the Preferred Shares is attached as Exhibit B hereto.
- 1.2 The Closing. The closing of the Debt Exchange (the "Closing") shall take place at the offices of Bizar Martin & Taub, LLP, 1350 Avenue of the Americas, New York, New York, or at such other designated place, simultaneously with the Company's consummation of its IPO (the time and date of the Closing being herein referred to as the "Closing Date"). On the Closing Date there will be issued to the Noteholders the Preferred Shares against delivery and cancellation of the original Notes. The Preferred Shares shall be held in escrow in accordance with Section 1.3 hereof. In the event the Company does not consummate the IPO within ninety (90) days of the date hereof, the terms and provisions of this Agreement shall be null and void and the parties shall have no further obligations to each other pursuant to this Agreement.
- 1.3 Escrow of Preferred Shares; Over-allotment Option Adjustment. The Preferred Shares to be issued to the Noteholders in accordance with Section 1.1 hereof shall be held in escrow by Bizar Martin & Taub, LLP (the "Escrow Agent") for up to 50 days from the effective date of the IPO. In the event that Whale Securities Co., L.P., exercises its over-allotment option, in whole or in part, to purchase up to an additional 255,000 Preferred Shares of the Company at \$6.00 per share (or an aggregate consideration of \$1,530,000) (the "Over-allotment Option"), 50% of the net proceeds (after deduction of the Underwriter's commissions and the non-accountable expense allowance) received by the Company from the exercise of the Over-allotment Option shall be used to repay the Notes on a pro-rata basis and the Preferred Shares to be received by the Noteholders in accordance with Section 1.1 hereof shall be proportionately reduced.

# ARTICLE II.

The Company represents and warrants to, and agrees with, the Noteholders as follows:

- 2.1 Corporate Organization and Qualification. The Company (and its wholly owned subsidiary Network-1 Acquisition Corp.) is a corporation duly organized, validly existing, and in good standing under the laws of its jurisdiction of incorporation, and is qualified to transact business and is in good standing as a foreign corporation in every jurisdiction in which its ownership, leasing, licensing, or use of property or assets or the conduct of its business makes such qualification necessary, except in such jurisdictions where the failure to be so qualified or in good standing would not have a material adverse effect on the business, results of operations, financial condition, or prospects of the Company. Except for Network-1 Acquisition Corp., the Company has no subsidiaries and has no investment, whether by way of ownership of stock or other securities or by loan, advance, or otherwise, in any corporation, partnership, firm, association, or other business entity. The Company has all required power and authority to own its property and to carry on its business as now conducted and proposed to be conducted.
- 2.2 Validity of Transaction. The Company has all requisite power and authority to execute, deliver, and perform this Agreement, and to issue the Preferred Shares in exchange for the Notes. All necessary corporate proceedings of the Company have been duly taken to authorize the execution, delivery, and performance of this Agreement, and to authorize the issuance of the Preferred Shares for the Notes. This Agreement, has been duly authorized, executed, and delivered by the Company, and constitutes the legal, valid, and binding obligation of the Company, and is enforceable as to the Company in accordance with its respective terms, except as may be limited by applicable bankruptcy, reorganization, insolvency, moratorium, or other similar laws or by legal or equitable principles relating to or limiting creditors' rights generally or as rights to indemnification may be limited by applicable securities laws. Except as to filings which may be required under

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applicable state securities regulations, no consent, authorization, approval, order, license, certificate, or permit of or from, or declaration or filing with, any Federal, state, local, or other governmental authority or of any court or other tribunal is required by the Company in connection with the transactions contemplated hereby. No consent of any party to any contract, agreement, instrument, lease, license, arrangement, or understanding to which the Company is a party, or by which any of its properties or assets is bound, is required for the execution, delivery, or performance by the Company of this Agreement, and the execution, delivery, and performance of this Agreement, will not violate, result in a breach of, conflict with, or (with or without the giving of notice or the passage of time or both) entitle any party to terminate or call a default under any such contract, agreement, instrument, lease, license, arrangement, or understanding, or violate or result in a breach of any term of the Certificate of Incorporation or By-laws of the Company, or violate, result in a breach of, or conflict with any law, rule, regulation, order, judgment, or decree binding on the Company or to which any of its operations, business, properties, or assets is subject. The Preferred Shares issuable upon exchange of the Notes are duly authorized, will be validly issued, fully paid, and nonassessable, will not have been issued in violation of any preemptive right of stockholders or rights of first refusal, and the Noteholders will have good title to the Preferred Shares, free and clear of all liens, security interests, pledges, charges, encumbrances, stockholders agreements and voting trusts.

2.3 Capitalization. The authorized capital stock of the Company consists of 25,000,000 shares of Common Stock and 5,000,000 shares of preferred stock, par value \$.01 per share (the "Preferred Stock"), of which 250,000 Preferred Shares have been designated Series A Redeemable Preferred Stock, 500,000 Preferred Shares have been designated Series B Convertible Preferred Stock and 750,000 shares will be designated Series C Convertible Preferred Stock prior to the Closing Date, having the designations, dividend rights, voting powers, exchange and redemption rights, rights on liquidation or dissolution, and other preferences and relative, participating, optional, or other preferences and relative, participating, optional, or other special rights, and the qualifications, limitations or restrictions thereof, set forth in their respective Certificates of Designations. On the date hereof, the Company has 2,598,464 shares of Common Stock and 500,000 shares of Series B Convertible

Preferred Stock outstanding. All issued and outstanding shares of Common Stock and Preferred Stock have been validly issued and are fully paid and nonassessable and have not been issued in violation of any Federal or state securities laws. Except for the obligation of the Company to issue (a) securities referenced in the Amendment No. 1 to the Company's Registration Statement on form SB-2, as filed with the Securities and Exchange Commission on September 16, 1998, relating to the initial public offering of its securities, (b) upon the exercise of the options and warrants which are currently outstanding to purchase 630,886 shares of Common Stock, excluding any options issued or to be issued under the Company's Stock Option Plan), there are not, as of the date hereof, any outstanding or authorized subscriptions, options, warrants, calls, rights, commitments, or any other agreements obligating the Company to issue (i) any additional shares of its capital stock or (ii) any securities convertible into, or exercisable or exchangeable for, or evidencing the right to subscribe for, any shares of its capital stock. Other than the Company's Stock Option Plan, the Company has not adopted or authorized any plan for the benefit of its officers, employees, or directors which require or permit the issuance, sale, purchase,

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or grant of any shares of the Company's capital stock, any securities convertible into, or exercisable or exchangeable for, or evidencing the right to subscribe for any shares of the Company's capital stock, or any phantom shares or any stock appreciation rights.

#### ARTICLE III.

Representations, Warranties, and Agreements of the Noteholders

Each of the Noteholders, severally and not jointly, represents and warrants to, and agrees with, the Company as follows:

- 3.1 Organization. Such Noteholder (if not an individual) is duly organized under the laws of the state of its jurisdiction of organization and has full power and authority to enter into this Agreement and to consummate the transactions set forth herein. All necessary proceedings have been duly taken to authorize the execution, delivery, and performance of this Agreement by such Noteholder (if not an individual).
- 3.2 Accredited Investor; Access to Information. Each Noteholder and, to the knowledge of such Noteholder, each limited partner or shareholder of such Noteholder in the case of a Noteholder which is a limited partnership or corporation, and each partner of such Noteholder in the case of a Noteholder which is a general partnership, is an "accredited investor," as that term is defined in Rule 501 of Regulation D promulgated under the Securities Act. Each Noteholder, the general partners, limited partners and shareholders of such Noteholder, as the case may be, has had substantial experience in private securities transactions like this one, is capable of evaluating the merits and risks of an investment in the Company, and has had a full opportunity to discuss the business, management, and financial affairs of the Company with the Company's management. Each Noteholder has received all requested documents from the Company and has had a full opportunity to ask questions of, and receive answers from, the officers of the Company.
- 3.3 Investment Intent. Each Noteholder is acquiring the Preferred Shares for its, his or her own account for investment and not with a view to, or for sale in connection with, any public distribution thereof in violation of the Securities Act. Such Securityholder understands that Preferred Shares have not been registered for sale under the Securities Act or qualified under applicable state securities laws and that the Preferred Shares are being offered and sold to such Noteholder pursuant to one or more exemptions. Such Noteholder understands that it, he or she must bear the economic risk of the investment in the Company for an indefinite period of time, as the Preferred Shares cannot be sold unless subsequently registered under the Securities Act and qualified under state securities laws, unless an exemption from such registration and qualification is available. Such Noteholder acknowledges that no public market for the securities of the Company presently exists and none may develop in the future.
- 3.4 Transfer of Securities. Such Noteholder will not sell or otherwise dispose of the Preferred Shares unless (a) a registration statement with respect

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the Securities Act and such Preferred Shares have been qualified under applicable state securities laws or (b) there is presented to the Company notice of the proposed transfer and, if it so requests, a legal opinion reasonably satisfactory to the Company that such registration and qualification is not required: provided, however, that no such registration or qualification or opinion of counsel shall be necessary for a transfer by such Noteholder (i) to any entity controlled by, or under common control with, such Noteholder (ii) to a partner or officer of such Noteholder, (iii) to a partner or officer of the general partner of such Noteholder, or (iv) to the spouse, lineal descendants, estate, or a trust for the benefit of any of the foregoing, provided the transferee agrees in writing to be subject to the terms hereof to the same extent as if he were such Noteholder. Such Noteholder consents that any transfer agent of the Company may be instructed not to transfer any Preferred Shares unless it receives satisfactory evidence of compliance with the foregoing provisions, and that there may be endorsed upon any certificate representing such shares (and any certificates issued in substitution therefor) the following legend calling attention to the foregoing restrictions on transferability of such shares, stating in substance:

> "THE SECURITIES EVIDENCED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR QUALIFIED UNDER ANY STATE SECURITIES LAW."

The Company shall, upon the request of any holder of a stock certificate bearing the foregoing legend and the surrender of such certificate, issue a new stock certificate without such legend if (A) the stock evidenced by such certificate has been effectively registered under the Securities Act and qualified under any applicable state securities law and sold by the holder thereof in accordance with such registration and qualification, or (B) such holder shall have delivered to the Company a legal opinion reasonably satisfactory to the Company to the effect that the restrictions set forth herein are no longer required or necessary under the Securities Act or any applicable state law.

- 3.5 Authorization. All actions on the part of such Noteholder necessary for the authorization, execution, delivery, and performance by such Noteholder of this Agreement have been taken. This Agreement has been duly authorized, executed, and delivered by such Noteholder, is the legal, valid, and binding obligation of such Noteholder, and are enforceable as to such Noteholder in accordance with their respective terms, except as may be limited by applicable bankruptcy, reorganization, insolvency, moratorium, or other similar laws or by legal or equitable principles relating to or limiting creditors' rights generally or as rights to indemnification may be limited by applicable securities laws.
- 3.6 Finder or Broker. Neither such Noteholder nor any person acting on behalf of such Noteholder has negotiated with any finder, broker, intermediary, or similar person in connection with the transactions contemplated herein.

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# ARTICLE IV.

#### Additional Provisions.

4.1 Indemnification. From and after the Closing, the Company, on the one hand, and the Noteholders (severally and not jointly), on the other hand, shall indemnify and save harmless the other (including officer, directors, employees, agents and representatives) against any loss, claim, liability, expense (including reasonable attorney's fees) or other damage caused by or arising out of (i) the breach of any representation or warranty made by any such party or (ii) the failure by the party against whom indemnification is sought to perform any of its covenants or agreements in this Agreement.

- 4.2 Escrow Agent Indemnification. The parties acknowledge that: (i) the Escrow Agent is acting solely as a stakeholder at their request and for their convenience and without compensation; (ii) the Escrow Agent shall not be deemed to be the agent of any of the parties; and (iii) the Escrow Agent shall not be liable to any party herein in connection with its role as Escrow Agent, or the performance of its duties as Escrow Agent hereunder, or any act or omission in connection therewith, except for acts of gross negligence or willful misconduct. The parties hereby jointly and severally indemnify and agree to defend and hold the Escrow Agent harmless from and against all costs, claims and expenses, including, but not limited to, reasonable attorneys' fees suffered or incurred by the Escrow Agent and arising out of or related to its role as escrow agent or the performance of its duties hereunder, including the costs and expenses of defending itself (whether by retained attorneys or by itself) against any claim or liability arising out of or related to such role or such performance, except to the extent the same were suffered or incurred as a result of the Escrow Agent's gross negligence or willful misconduct.
- 4.3 Communications. All notices or other communications hereunder shall be in writing and shall be given by registered or certified mail (postage prepaid and return receipt requested), by an overnight courier service which obtains a receipt to evidence delivery, or by telex or facsimile transmission (provided that written confirmation of receipt is provided), addressed as set forth below:

If to the Company:

Network-1 Security Solutions, Inc. 70 Walnut Street Wellesley, MA 02481

Attention: Avi A. Fogel, President and Chief Executive Officer

With a copy to:

Bizar Martin & Taub, LLP 1350 Avenue of the Americas 29th Floor New York, New York 10019 Attention: Sam Schwartz, Esq.

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If to the Noteholders, at their respective addresses as set forth on Exhibit A hereto, or such other address as any party may designate to the other in accordance with the aforesaid procedure. All notices and other communications sent by overnight courier service shall be deemed to have been given as of the next business day after delivery thereof to such courier service, those given by telex or facsimile transmission shall be deemed given when sent, and all notices and other communications sent by mail shall be deemed given as of the third business day after the date of deposit in the United States mail.

- 4.4 Successors and Assigns. The Company may not sell, assign, transfer, or otherwise convey any of its rights or delegate any of its duties under this Agreement, except to a corporation which has succeeded to substantially all of the business and assets of the Company and has assumed in writing its obligations under this Agreement, and this Agreement shall be binding on the Company and such successor. This Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the Noteholders and their successors and assigns.
- 4.5 Amendments and Waivers. Neither this Agreement nor any term hereof may be changed or waived (either generally or in a particular instance and either retroactively or prospectively) absent the written consent each party hereto.
- 4.6 Survival of Representations. The representations, warranties, covenants, and agreements made herein or in any certificate or document executed in connection herewith shall survive the execution and delivery of this Agreement and the issuance and delivery of the Preferred Shares to the Noteholders.
- 4.7 Delays or Omissions; Waiver. No delay or omission to exercise any right, power, or remedy accruing to either the Company or the Noteholders upon

any breach or default by the other under this Agreement shall impair any such right, power, or remedy no shall it be construed to be a waiver of any such breach or default, or any acquiescence therein or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring.

- 4.8 Entire Agreement; Binding Effect. This Agreement (together with the exhibit attached hereto) contains the entire understanding of the parties with respect to their respective subject matter and all prior negotiations, discussions, commitments, and understandings heretofore had between them with respect thereto are merged herein and therein. This Agreement and the Debt Exchange shall be binding on each Noteholder who executes this Agreement. The failure of any Noteholder named in Exhibit A to execute this Agreement shall not effect the Closing of the Debt Exchange with respect to those Noteholders who have executed this Agreement.
- 4.9 Headings. All article and section headings herein are inserted for convenience only and shall not modify or affect the construction or interpretation of any provision of this Agreement.
- 4.10 Counterparts; Governing Law. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Massachusetts, without giving effect to conflict of laws.

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4.11 Further Actions. At any time and from time to time, each party agrees, without further consideration, to take such actions and to execute and deliver such documents as may be reasonably necessary to effectuate the purposes of this Agreement.

IN WITNESS WHEREOF, this Agreement has been duly executed on the date hereinabove set forth.

NETWORK-1 SECURITY SOLUTIONS, INC.

By: /s/ Avi A. Fogel

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Name: Avi A. Fogel

Title: President and Chief Executive Officer

Noteholders:

APPLEWOOD ASSOCIATES, L.P.

By: /s/ Barry Rubenstein

Name: Barry Rubenstein
Title: General Partner

CMH CAPITAL MANAGEMENT CORP.

By: /s/ Corey M. Horowitz

Name: Corey M. Horowitz

Title: President

/s/ Corey M. Horowitz

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COREY M. HOROWITZ

# RAPTUR MANAGEMENT CO.

By: /s/ Steve Ackerman
Name: Title:
/s/ Douglas Lipton
DOUGLAS LIPTON
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/s/ Lawrence A. Wein
LAWRENCE WEIN
/s/ Steven Heineman
STEVEN HEINEMAN
/s/ Herb Karlitz
HERB KARLITZ
/s/ Charles Stevenson
CHARLES P. STEVENSON, JR.
/s/ Albert Kalimian
ALBERT KALIMIAN
NAVIGATOR FUND, L.P
By: /s/ Corey Horowitz
Name: Corey M. Horowitz Title: Authorized Signatory
NAVIGATOR GLOBAL FUND
By: /s/ Corey Horowitz
Name: Corey M. Horowitz Title: Authorized Signatory
/s/ Robert Graifman
ROBERT GRAIFMAN
MBF CAPITAL CORP.
By: /s/ Mark Fisher
Name: Title:

# EXHIBIT A

<TABLE> <CAPTION>

> PRINCIPAL AMOUNT OF PROMISSORY NOTES AND

ACCRUED INTEREST (AS OF NUMBER OF SHARES

PREFERRED STOCK

OCTOBER 30, 1998) TO BE OF SERIES C CONVERTED INTO SERIES C NAME AND ADDRESS

OF SECURITYHOLDER	PREFERRED S'	TOCK TO BE RECEIVE
<\$> Applewood Associates, L.P. 68 Wheatley Road Brookville, New York 11545	<c> \$2,009,156</c>	<c> 382,696</c>
CMH Capital Management Corp. 875 Third Avenue, Suite 2900 New York, New York 10022	\$171,541	32,675
Corey M. Horowitz 220 East 63rd Street, PH-D New York, New York 10021	\$41,193	7,846
Raptur Management Co. c/o Corey Horowitz CMH Capital Management Corp. 875 Third Avenue, Suite 2900 New York, New York 10022	\$87,075	16,586
Douglas Lipton 1235 Park Avenue, Apt 2B New York, New York 10128	\$43,538	8,293
Lawrence Wein 247 West 12th Street New York, New York 10014	\$21,769	4,146
Steven Heineman 69 LaRue Drive Huntington, New York 11743	\$21,769	4,146
Herb Karlitz 55 Old Quarry Road Englewood Drive, NJ 07631	\$64,364	12,260
Charles P. Stevenson, Jr. 45 Rockefeller Plaza Suite 1776 New York, New York 10022 		

 \$87,075 | 16,586 ||  |  |  |
10

<TABLE> <CAPTION>

> PRINCIPAL AMOUNT OF PROMISSORY NOTES AND

ACCRUED INTEREST (AS OF NUMBER OF SHARES

OCTOBER 30, 1998) TO BE OF SERIES C CONVERTED INTO SERIES C

NAME AND ADDRESS PREFERRED STOCK OF SECURITYHOLDER PREFERRED STOCK TO BE RECEIVED

<S>

<C>



Albert Kalimian P.O. Box 645 Locust Valley, NY 11560	\$43,538	8,293	
Navigator Fund, L.P. 45 Rockefeller Plaza Suite 1776 New York, New York 10022	\$264,766	50,432	
Navigator Global Fund 45 Rockefeller Plaza Suite 1776 New York, New York 10022	\$37,085	7,064	
Robert Graifman 100 Tennyson Short Hills, NJ	\$20,826	3,967	
MBF Capital Corp. 12 East 49th Street New York, New York 10017	\$41,193	7,846	
TOTAL:			

 \$2,954,888 | 562,836 |  |11

# CERTIFICATE OF DESIGNATION OF SERIES C PREFERRED STOCK

NETWORK-1 SECURITY SOLUTIONS, INC.

Pursuant to Section 242 of the General Corporation Law of the State of Delaware

We, the undersigned, Avi A. Fogel, being the President and Chief Executive Officer of Network-1 Security Solutions, Inc. ("Corporation") and Robert Russo, Secretary of the Corporation, hereby certify pursuant to Section 151(g) of the General Corporation Law of the State of Delaware that:

- 1. The name of the Corporation is Network-1 Security Solutions, Inc.
- 2. The Certificate of Incorporation of the Corporation was filed with the Department of State on July 13, 1990, an Amended and Restated Certificate of Incorporation was filed with the Department of State on February 28, 1994, and Certificates of Amendment to the Certificate of Incorporation were filed with the Department of State on March 16, 1994, May 18, 1998, and July 20, 1998, respectively.
- 3. Pursuant to authority thereby vested in the Board of Directors by Article IV of the Corporation's Amended and Restated Certificate of Incorporation, the Board of Directors adopted the following resolutions on October \_\_\_\_, 1998 establishing a series of 750,000 shares of Preferred Stock of the Corporation:

RESOLVED, that pursuant to Section 151(g) of the General Corporation Law of the State of Delaware and Article IV of the Corporation's Amended and Restated Certificate of Incorporation, there is hereby established a series of the Corporation's Preferred Stock having the following terms and designations:

Section 1. Designation and Amount. The shares of such series having a par value of \$0.01 per share shall be designated as "Series C Convertible Preferred Stock" (the "Series C Preferred Stock") and the number of shares constituting such series shall be 750,000. The relative rights, preferences and limitations of the Series C Preferred Stock shall be in all respects identical, share for share, to the Common Stock of the Corporation, except as otherwise provided

herein.

Section 2. Dividends. The holders of Series C Preferred Stock shall be entitled to receive dividends and other distributions when, as and if declared by the Board of Directors out

of funds legally available for such purposes. If at any time the Corporation declares any dividend or other distribution on its Common Stock and there are shares of its Series C Preferred Stock issued and outstanding, then a dividend or other distribution shall also be declared on the Series C Preferred Stock payable at the same time and on the same terms and conditions, entitling each holder of Series C Preferred Stock to receive the dividend or distribution such holder would have received had such holder converted the Series C Preferred Stock as of the record date for determining stockholders entitled to receive such dividend or distribution.

Section 3. Voting Rights. Except as otherwise provided by the General Corporation Law of the State of Delaware, the Series C Preferred Stock and the Common Stock of the Corporation shall vote as one class, with the holder of each share of Series C Preferred Stock entitled to the number of votes equal to the number of shares of Common Stock into which such share of Series C Preferred Stock could have been converted as of the record date for determining the stockholders having notice of and to vote at such meeting.

Section 4. Reacquired Shares. Any shares of the Series C Preferred Stock redeemed or purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and cancelled promptly after the acquisition thereof. All such shares shall upon their cancellation become authorized but unissued shares of Preferred Stock, unless otherwise provided for in the Certificate of Incorporation of the Corporation, and may be reissued as part of a new series of Preferred Stock to be created by resolution or resolutions of the Board of Directors, subject to the conditions or restrictions on issuance set forth herein.

Section 5. Liquidation, Dissolution or Winding Up.

(A) Upon the liquidation, dissolution or winding up of the Corporation, no distribution shall be made (i) to the holders of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series C Preferred Stock unless, prior thereto, the holders of Series C Preferred Stock shall have received a liquidation preference of \$5.25 per share, plus an amount equal to unpaid dividends thereon, if any, including accrued dividends, whether or not declared, to the date of such payment or (ii) to the holders of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series C Preferred Stock, except distributions made ratably on the Series C Preferred Stock and all other such parity stock in proportion to the total amounts to which the holders of all such shares are entitled upon such liquidation, dissolution or winding up. For purposes of this Certificate, (1) the sale, conveyance, exchange or transfer of all or substantially all of the property and assets of the Corporation, or (2) the consolidation or merger of the Corporation with or into any other corporation (in which the Corporation is not the surviving entity) shall be deemed to be a liquidation, dissolution or winding up of the Corporation within the meaning of this Section 5(A) if so elected by a majority of the outstanding shares of Series C Preferred Stock, in their sole discretion.

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For purposes of this Certificate the term "junior stock" shall mean the Common Stock and any other class or series of shares of the Corporation hereafter authorized over which Series C Preferred Stock has preference or priority in the payment of dividends or in the distribution of assets on any liquidation, dissolution or winding up of the Corporation.

(B) Upon liquidation, dissolution or winding up of the Corporation, and after full payment as provided in Section 5(A) above, the holders of Series C Preferred Stock shall not be entitled to any further participation in any distribution of assets by the Corporation.

Section 6. Conversion.

(A) Subject to the provisions for adjustments hereinafter set forth, each

share of the Series C Preferred Stock shall be convertible, at any time hereafter, at the option of the holder thereof, in the manner hereinafter set forth, into one fully paid and non-assessable share of Common Stock of the Corporation.

- (B) The number of shares of Common Stock into which each share of Series C Preferred Stock is convertible shall be adjusted from time to time as follows:
  - (i) In case the Company shall (a) subdivide the outstanding shares of its Common Stock into a larger number of shares, (b) combine the outstanding shares of its Common Stock into a smaller number of shares or (c) issue by reclassification of its Common Stock any shares of the Company, each holder of Series C Preferred Stock shall thereafter be entitled upon conversion to receive for each share of Series C Preferred Stock held by him the number of shares of the Company which he would have owned or have been entitled to receive after the happening of one of the events described above in this clause (i) had such share of Series C Preferred Stock been converted immediately prior to the happening of such event. Such adjustment shall become effective on the day next following the day upon which such subdivision, combination or reclassi-fication shall become effective.
  - (ii) In case the Company shall consolidate or merge into or with another corporation, or in case the Company shall sell or convey to any other person or persons all or substantially all the property of the Company, or in case the Company shall effect a capital reorganization or reclassification of its Common Stock, each holder of Series C Preferred Stock then outstanding shall have the right thereafter to convert each share of Series C Preferred Stock held by him into the kind and amount of shares

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of stock, other securities, cash, and property receivable upon such consolidation, merger, sale, conveyance, reorganization or reclassification by a holder of the number of shares of Common Stock into which such share might have been converted immediately prior to such consolidation, merger, sale, conveyance, reorganization or reclassification and shall no other conversion rights. In any such event, effective provision shall be made, in the certificate or articles or incorporation of the resulting or surviving corporation or otherwise or in any contracts of sale and conveyance so that, so far as appropriate and as nearly as reasonably may be, the provisions set forth herein for the protection of the conversion rights of the shares of Series C Preferred Stock shall thereafter be made applicable.

Such adjustments shall be made successively whenever any event listed above shall occur.

- (C) In the event that at any time, as a result of an adjustment made pursuant to this Section 6, the holder of any share of Series C Preferred Stock thereafter converted shall become entitled to receive any shares of capital stock or other securities of the Company other than shares of its Common Stock, thereafter the number of such other shares of capital stock or other securities so receivable upon conversion of Series C Preferred Stock shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to shares of the Company's Common Stock contained in this Section 6, and the provisions of this certificate with respect to shares of the Company's Common Stock shall apply, to the extent applicable, on like terms to any such other shares of capital stock or warrants or other securities.
- (D) If any adjustment in the number of shares of Common Stock into which each share of the Series C Preferred Stock may be converted as required pursuant to this Section 6 would result in an increase or decrease of less than 1% in the number of shares of Common Stock into which each share of the Series C Preferred Stock is then convertible, the amount of any such adjustment shall be carried forward, and adjustment with respect thereto shall be made at the time of and together with any subsequent adjustment which, together with such amount and any other amount or amounts so carried forward, shall aggregate at least 1% of the number of shares of Common Stock into which each share of the Series C Preferred

Stock is then convertible. All calculations under this Section 6(D) shall be made to the nearest one-hundredth of a share.

(E) The Board of Directors may, but shall not be required to, increase the number of shares of Common Stock into which each share of the Series C Preferred Stock may be converted, in addition to the adjustment required by this Section 6, as shall be determined by it (as evidenced by a resolution of the Board of Directors) to be advisable in order to avoid or diminish any income deemed to be received by any holder of the Common Stock or Series C Preferred Stock

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resulting from any dividend or distribution of stock or issuance of rights or warrants to purchase or subscribe for stock or from any event treated as such for federal income tax purposes.

- (F) The holder of any shares of the Series C Preferred Stock may exercise his or its option to convert such shares into shares of Common Stock by surrendering for such purpose to the Corporation, at its principal office or at such other office or agency maintained by the Corporation for that purpose, a certificate or certificates representing the shares of Series C Preferred Stock to be converted accompanied by a written notice stating that such holder elects to convert all or a specified whole number of such shares in accordance with the provisions of this Section 6 and specifying the name or names in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. In case such notice shall specify a name or names other than that of such holder, such notice shall be accompanied by payment of all transfer taxes payable upon the issuance of shares of Common Stock in such name or names. As promptly as practicable, and in any event within five business days after the surrender of such certificates and the receipt of such notice relating thereto and, if applicable, payment of all transfer taxes, the Corporation shall deliver or cause to be delivered (a) certificates representing the number of validly issued, fully paid and non-assessable shares of Common Stock of the Corporation to which the holder of the Series C Preferred Stock so converted shall be entitled and (b) if less than the full number of shares of the Series C Preferred Stock evidenced by the surrendered certificate or certificates, of like tenor, for the number of shares evidenced by such surrendered certificate or certificates less the number of shares converted. Such conversions shall be deemed to have been made at the close of business on the date of giving of such notice and of such surrender of the certificate or certificates representing the shares of the Series C Preferred Stock to be converted so that the rights of the holder thereof shall cease except for the right to receive Common Stock of the Corporation in accordance herewith, and the converting holder shall be treated for all purposes as having become the record holder of such Common Stock of the Corporation at such time.
- (G) Upon conversion of any shares of the Series C Preferred Stock, the holder thereof shall not be entitled to receive any accumulated, accrued or unpaid dividends in respect of the shares so converted, provided that such holder shall be entitled to receive any dividends on such shares of the Series C Convertible Preferred Stock declared prior to such conversion if such holder held such shares on the record date fixed for the determination of holders of the Series C Preferred Stock entitled to receive payment of such dividend.
- (H) The transfer of shares of Series C Preferred Stock by any holder shall constitute an automatic conversion of such shares into Common Stock in accordance with 6(A) hereof; provided, that, the holder of Series C Preferred Stock may transfer such shares without triggering such automatic conversion if a transfer is made to (i) the holder's spouse, children or issue, trustee of trusts or custodians for his benefit or for the benefit of his spouse, children or issue, or (ii) any entity controlled by or under common control with such holder or his spouse, children or issue or (iii) by operation of law pursuant to rights of testacy and intestacy.

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(I) The Corporation shall at all times reserve and keep available out of its authorized Common Stock the full number of shares of Common Stock of the Corporation or other securities issuable upon the conversion of all outstanding shares of the Series C Preferred Stock.

Section 7. Adjustments for Consolidation, Merger, etc. Prior to the consummation of a consolidation or merger or a sale of substantially all of the property of the Company as described in Section 6 (B)(ii) hereof, each corporation, including this Corporation, which may be required to deliver any stock, securities cash or other property to the holders of shares of the Series C Preferred Stock shall assume, by written instrument delivered to each transfer agent of the Series C Preferred Stock, the obligation to deliver to such holder such shares of stock, securities, cash or other property to which, in accordance with the provisions of Section 6, such holder may be entitled and each such corporation shall have furnished to each such transfer agent or person acting in a similar capacity, including the Corporation, an opinion of counsel for such corporation, stating that such assumption agreement is legal, valid and binding upon such corporation.

Section 8. Reports as to Adjustments. Whenever the number of shares of Common stock into which the shares of the Series C Preferred Stock are convertible is adjusted as provided in Section 6, the Corporation shall (A) promptly compute such adjustment and furnish to each transfer agent or person acting in a similar capacity, including the Corporation, for the Series C Preferred Stock, a certificate, signed by a principal financial officer of the Corporation, setting forth the number of shares of Common Stock into which each share of Series C Preferred Stock is convertible as a result of such adjustment and the computation thereof and when such adjustment will become effective and (B) promptly mail to the holders of record of the outstanding shares of the Series C Preferred Stock a notice stating that the number of shares into which the shares of Series C Preferred Stock are convertible has been adjusted and setting forth the new number of shares into which each share of the Series C Preferred Stock is convertible as a result of such adjustment and when such adjustment will become effective.

# Section 9. Notices of Corporate Action. In the event of:

(A) any taking by the Corporation of a record of the holders of its Common Stock for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a dividend payable solely in cash or shares of common stock) or other distribution, or any right or warrant to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right;

(B) any capital reorganization, reclassification or recapitalization of the Corporation (other than a subdivision or combination of the outstanding shares of its common stock), any consolidation or merger involving the Corporation and any other person (other than a consolidation or merger with a wholly-owned subsidiary of the Corporation, provided that the Corporation is the surviving or the continuing corporation and no change occurs in the common

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stock), or any transfer of all or substantially all the assets of the Corporation to any other person; or

(C) any voluntary or involuntary dissolution, liquidation or winding up of the Corporation;

then, and in each such case, the Corporation shall cause to be mailed to each transfer agent for the shares of the Series C Preferred stock and to the holders of record of the outstanding shares of the Series C Preferred Stock, at least 20 days (or 10 days in case of any event specified in clause (A) above) prior to the applicable record or effective date thereinafter specified, a notice stating (i) the date or expected date on which any such record is to be taken for the purpose of such dividend, distribution or right or (ii) the date or expected date to which any such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of record of Common Stock shall be entitled to exchange their shares of Common Stock for the securities or other property deliverable upon such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding up. Such notice shall also state whether such transaction will result in any adjustment in the number of shares of Common Stock into which each share of the Series C Preferred Stock shall be

convertible upon such adjustment and when such adjustment will become effective. The failure to give any notice required by this Section 9, or any defect therein, shall not affect the legality or validity of any such action requiring such notice.

IN WITNESS WHEREOF, the undersigned, being the President and Secretary of the Corporation, do hereby execute this Certificate of Designation, here declaring that this is their free act and deed and that the facts stated herein are true and accordingly have hereunto set their hands as of this \_\_\_\_\_ day of October, 1998.

NETWORK-1 SECURITY SOLUTIONS, INC.

By:	
ATTEST:	Avi A. Fogel, President and Chief Executive Officer
Robert Russo, Secretary	

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# EXHIBIT 23.1

### CONSENT OF INDEPENDENT AUDITORS

We consent to the inclusion of our report dated June 17, 1998 (July 8, 1998 with respect to Note F [3], July 17, 1998, with respect to the third paragraph of Note A and October 20, 1998 with respect to Note J), which contains an explanatory paragraph with respect to the Company's ability to continue as a going concern, on the financial statements of Network-1 Security Solutions, Inc. as of December 31, 1997 and 1996 and for each of the years then ended, in Amendment No. 2 to its Registration Statement on Form SB-2 and to the reference to our firm under the caption "Experts" in the Prospectus.

Richard A. Eisner & Company, LLP

New York, New York October 22, 1998