

Acquisition of SpaceNet, p. 65

191 mm / 5 mm shares = \$38.20 per share

In-process R&D, p. 66

valuation of p. 67

Cost of TurboSat p. 67

Gilat Satellite Networks, LLC.
Form 20-F
1998

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F-17 Acquisition of Gilat Florida, 1996
 ↳ record one-time charges in 1996 of \$7,991,000
 ↳ pooling of interests

F-18 Sale of GVT

As filed with the Securities and Exchange Commission on June 30, 1999

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 20-F

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

For the fiscal year ended December 31, 1998

Commission file number 0-21218

GILAT SATELLITE NETWORKS LTD.

(Exact name of Registrant as specified in its charter)

ISRAEL

(Jurisdiction of incorporation or organization)

Gilat House, Yegia Kapayim Street, Daniv Park, Kiryat
Arye, Petah Tikva, 49130 Israel

(Address of principal executive offices)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

NONE

(Title of each class)

Securities registered or to be registered pursuant of Section 12(g) of the Act:

Ordinary Shares, par value NIS 0.01 per share

(Title of class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

NONE
(Title of class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock at the close of the period covered by the annual report:

As of December 31, 1998, Registrant had 16,162,070 Ordinary Shares, NIS 0.01 par value per share outstanding.

As of June 16, 1999, Registrant had 20,969,162 Ordinary Shares, NIS 0.01 par value per share outstanding.

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

Indicate by check mark which financial statement item the Registrant elected to follow:

Item 17 _____ Item 18 X

PART I

ITEM 1: DESCRIPTION OF BUSINESS

General

Gilat Satellite Networks Ltd. ("Gilat") is a leading provider of products and services for satellite-based communications networks. We design, develop, manufacture, market and service products that enable complete end-to-end telecommunications and data networking solutions based on very small aperture terminal ("VSAT") satellite earth stations, related central station (hub) equipment and software. With our acquisition of Spacenet Inc. and its subsidiaries and certain foreign affiliates from GE American Communications, Inc. ("GE Americom"), a subsidiary of General Electric Corporation, and certain affiliates, on December 31, 1998, we now provide service offerings which include access to satellite transponder capacity, installation of network equipment, on-line network monitoring and network maintenance and repair services.

Our networks are primarily used for:

- on-line data delivery and transaction-oriented applications including point-of-sale (for example, credit and debit card authorization), inventory control and real time stock exchange trading
- telephone service in areas that are underserved by the existing telecommunications services or in remote locations without service
- Internet Protocol ("IP") based networking applications such as corporate intranets, corporate training and other broadband multicasting applications

Through December 31, 1998, we sold more than 110,000 interactive VSATs. According to Comsys, a leading industry source, Gilat has approximately 30% of the worldwide interactive VSAT market. Comsys also reports that in 1998, our market share was approximately 40% of the total interactive VSATs for which contracts were awarded worldwide. Major users of our products and services include the United States Postal Service, British Petroleum, John Deere, First Union Bank, PageNet, Rite Aid, Peugeot-Citroën and Telkom South Africa.

We distribute our products and services worldwide through our own direct sales force, service providers and agents and, in certain circumstances, joint ventures, alliances, and affiliated companies. Our distribution network and service offerings were enhanced by the Spacenet acquisition, which added a significant existing customer base as well as a distribution infrastructure in the United States, Europe, Asia and South America. As a result of the Spacenet acquisition, GE Americom, together with its affiliates, has become our largest shareholder with approximately 23.84% of our shares outstanding as of June 16, 1999.

Satellite-based communications networks offer several advantages over ground-based communication facilities. Among these advantages are the following:

- independence from telecommunication companies and other network providers
- exceptional reliability
- consistent and rapid response time in comparison to dial-up lines

- rapid deployment of networks and flexibility in their configuration, integration and location
- a versatile platform which allows for the provision of multiple applications and services
- cost savings over competing technologies for many applications

Gilat was incorporated in Israel in 1987. Gilat's corporate headquarters, executive offices and research and development, engineering and manufacturing facilities are located at Gilat House, Yegia Kapayim Street, Daniv Park, Kiryat Arye, Petah Tikva 49130, Israel. The telephone number is (972)3-925-2000.

Unless the context otherwise requires, references in this annual report on Form 20-F to "Gilat", "we", "our" refer to Gilat Satellite Networks Ltd. and its subsidiaries. Our subsidiaries include Gilat Satellite Networks, Inc., Gilat Satellite Networks (Europe) S.A., Gilat Satellite Networks (Holland) B.V., Gilat Satellite Networks (Hong Kong) Ltd., Gilat Florida Inc. ("Gilat Florida") and Spacenet Inc. and its subsidiaries and certain foreign affiliates ("Spacenet").

The name "Gilat™" and the names "TwoWay™", "OneWay™", "FaraWay™", "DialAway™", SkySurfer™, SkyBlaster™, Skydata®, ISAT®, WebSat™, Clearlink™ and Skystar Advantage® appearing in this report on Form 20-F are trademarks of Gilat and its subsidiaries. - GSAT® is a registered trademark of GTECH Corporation. Other trademarks appearing in this annual report on Form 20-F are owned by their respective holders.

Acquisition of Spacenet

On December 31, 1998, we completed the acquisition of Spacenet, a company engaged in providing VSAT-based network services. Prior to the acquisition, Spacenet had been our largest customer and a wholly-owned subsidiary of GE Americom, an indirect subsidiary of the General Electric Corporation. The transaction was completed pursuant to an Agreement and Plan of Merger entered into on September 25, 1998, between Gilat, GE Americom, and Spacenet. We acquired Spacenet from GE Americom in exchange for 5 million shares of newly issued Gilat ordinary shares. The acquisition was structured as a merger intended to qualify as a "tax-free" reorganization. See Item 13: "Interest of Management in Certain Transactions—Merger-Related Agreements—The Tax Matters Agreement."

As of June 16, 1999, GE Americom owns approximately 23.84% of our outstanding ordinary shares, and is our single largest shareholder. GE Americom has the ability to nominate up to two Directors to our Board as long as it owns at least 50% of the shares it received as part of the transaction. GE Americom has also agreed to certain "stand-still" provisions and restrictions on the transferability of its shares. See Item 13: "Interest of Management in Certain Transactions -Merger-Related Agreements-The Shareholders' Agreement."

Prior to the acquisition, Spacenet was the single largest customer for our equipment. Spacenet purchased our VSAT products in order to incorporate them into Spacenet's VSAT-based network service offerings. Aggregate sales to Spacenet represented approximately 28%, 34% and 45% of Gilat's total sales in 1996, 1997 and 1998, respectively.

The acquisition of Spacenet has enabled Gilat to expand from primarily manufacturing and selling VSAT equipment to becoming a provider of complete end-to-end telecommunications and data networking solutions based on VSAT satellite earth stations. We believe that this acquisition greatly enhances our ability to develop and offer new products and services and to maintain our position as one of the leaders in the VSAT industry, especially since our major competitor is also a provider of both

equipment and services. The Spacenet acquisition has added a significant customer base in the United States, Europe, Asia and South America and access to Spacenet's other relationships in the global VSAT industry.

As part of the acquisition, we entered into several significant agreements with GE. See Item 13: "Interest of Management in Certain Transactions—Merger-Related Agreements."

In addition, as part of the Spacenet acquisition, we acquired certain advanced VSAT technology developed under the name Turbosat. We plan to market this technology under our own name. We believe that there is no VSAT system which is currently commercially available that has the capabilities purchased and that, upon our completion of the development of this technology, we will be able to offer the most technologically advanced VSAT in the market. We believe that this technology, as well as other patents and trademarks acquired including the right to use the GE logo for three years, further strengthen our market position.

Public Offering

In February 1999 we completed a public offering of 5,456,750 Ordinary Shares, of which 4,711,750 Ordinary Shares were sold by Gilat and 745,000 by certain shareholders (the "Offering"). As of June 16, 1999, we have 20,969,162 Ordinary Shares outstanding.

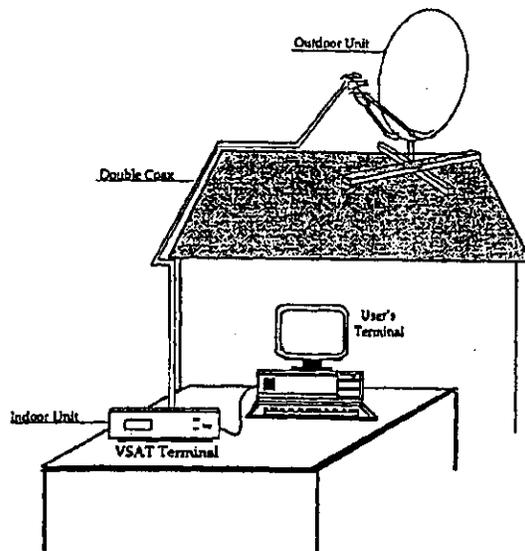
Industry Background

VSAT Industry Background

The emergence of the Very Small Aperture Terminal (VSAT) in the 1970s marked the beginning of a new era in satellite communication. A VSAT network consists of:

- several dozen to several thousand VSAT remote sites with small antennas
- a large central earth station called a hub, which includes a large antenna and enables the connection of all the VSATs in the network
- satellite transponder capacity

A VSAT remote site includes an indoor unit, an outdoor unit and a small antenna. The indoor unit usually fits on a desktop (much like a modem) and contains the circuitry that activates the communications link between the user's equipment and the satellite. The outdoor unit includes a small antenna, usually 2 to 6 feet, that can be mounted on an end-user's roof, ground or wall and electronic equipment that transmits and receives signals to and from the satellite transponder.



VSAT on-site equipment

The hub for a VSAT network consists of a large dish antenna (4.5 to 11 meters) and radio frequency electronics equipment to allow signals to be transmitted between the hub and the satellite transponder. A hub also includes electronic equipment to provide for satellite communications, protocol support and network management functions.

Satellite transponder capacity is available on existing satellites positioned in geostationary orbit (at 35,800 km above the equator). Once in orbit, a satellite beam can cover a geographic area the size of the continental United States or Western Europe. This coverage area is known as the satellite's footprint. The satellite receives information from a VSAT, amplifies it, and transmits it back to earth on a different frequency. A single satellite transponder has a capacity of approximately 100 million bits/seconds of information. This means that if the transponder is accessed for only 90 seconds per day, more than 1 billion bytes of data, the equivalent of 865,000 double-spaced pages, would be transmitted.

The current generation of high power Ku-band satellites and sophisticated VSAT earth stations are particularly well suited to provide high speed business communications services. The use of the Ku-band frequencies (as opposed to the C-band used by older generations of satellites) offers reduced interference with ground communications. This enables satellites to use the higher broadcasting power necessary to support VSAT earth stations and makes it cost-effective to transmit to or among numerous locations. With increasing satellite power and the latest generation of VSAT software, VSAT earth stations are becoming smaller and less expensive, reducing overall network cost.

Before the emergence of VSATs, commercial communication via satellite was very costly because it required an expensive ground terminal and a very large dish antenna. Satellite-based communications solutions were therefore limited to only those large companies which could afford them. In contrast, VSATs are significantly less expensive than other satellite solutions partly because they do not require

end-users to dedicate staff specialists or make a sizable infrastructure investment.

VSAT networks also offer several advantages compared to ground-based communications networks:

- Excellent and dedicated transmission quality
- The capability of transmitting extremely large data flows
- Fixed transmission costs, insensitive to distance or the number of receiving stations
- Rapid and cost effective deployment in geographically isolated regions like mining areas and developing countries.

Market Opportunity

The market for communication network products and services has experienced rapid growth in recent years, and we believe that it will continue to do so into the future. Some of the key factors responsible for this growth include:

- rapidly growing demand for communications capacity driven by the increase in bandwidth-intensive applications;
- continuous technological advances which are broadening applications for, decreasing the cost of, and increasing the capacity of, both satellite and ground-based networks;
- global deregulation and privatization of government-owned telecommunications monopolies which allow for greater access to communications alternatives.

The above trends have benefited a range of alternative technologies such as switched digital networks (ISDN service), frame relay and asynchronous transfer mode systems, as well as VSAT-based systems. The growth in the use of VSATs has been strong and consistent. According to industry sources, the installed VSAT base grew from 8,000 terminals in 1986 to approximately 375,000 terminals in 1998.

We provide VSAT-based communications solutions to target growth opportunities in three rapidly expanding market segments, each of which is further described below:

- data networks for:
 - interactive applications such as consumer ATM, credit card, debit card and lottery transactions, retailer and manufacturer inventory control and utilities' monitoring and control systems for power lines and pipelines
 - unidirectional applications such as data broadcasting and paging systems
- telephone service offerings in remote and rural areas and in underserved urban areas, primarily in developing countries
- IP-based applications such as private corporate networks for business television, video teleconferencing, employee training, publishing information and sharing data among employees, vendors and customers as well as Internet access.

VSAT Data Networks

The significant growth in interactive data network services during the last decade has led to increased demand for satellite-based networks. VSAT and satellite technology is particularly well suited to those data networks which need to (i) reach many locations over vast distances simultaneously, (ii) solve a "last mile" or congestion problem, allowing high bandwidth access in areas currently limited to slow connections like copper wire, (iii) transmit to remote locations and to emerging markets where the terrestrial telecommunications infrastructure is not well developed, and (iv) rapidly provide services across a large geographic area served by multiple terrestrial providers.

Due to the above advantages, corporate users are increasingly realizing the benefits of VSAT networks. As a result, VSAT networks are experiencing significant growth as a substitute for, or complement to, ground-based services such as frame relay and ISDN.

VSAT-Based Telephone Service

In a large number of remote, rural and urban areas, primarily in developing countries, there is limited or no telephone service due to inadequate telecommunications infrastructure. In these areas, VSAT networks are able to utilize existing satellite infrastructure to rapidly provide high quality cost-effective telecommunications solutions. In contrast to ground-based networks, VSAT networks are simple to reconfigure or expand, relatively immune to difficulties of topography and can be located almost anywhere. Additionally, VSATs can be installed and connected to a network in a matter of hours and seldom require maintenance.

As a result of the above advantages, the market for VSAT-based telephone service, consisting of both large companies which require private networks to provide communications between branch offices and corporate headquarters, and service providers targeting rural and residential areas in developing countries that cannot afford basic telephone service, is rapidly growing.

VSAT-Based Internet Applications

While international voice traffic was expected to grow at a rate of 13% annually, from 1996-2000, international data traffic growth is expected to significantly outpace voice traffic growth. One of the key factors contributing to the growth in data traffic is the increasing use of IP-based broadband applications dominated by the Internet. As more businesses evolve from establishing an Internet presence to utilizing securely connected geographically dispersed locations, the demand for high quality IP-based connectivity and value-added services will grow. Industry sources forecast that the U.S. Internet access services market will grow at a rate of over 40% per year to over \$19.0 billion in 2000, with business connectivity and value-added services representing a large portion of that market.

Products and Services

We currently offer three VSAT product lines, each of which is generally incorporated into a VSAT network consisting of a remote terminal linked to a central hub or control center via a satellite. In addition, Spacenet, which we acquired in December, 1998, offers satellite-based network products and services including private communications networks carrying high speed two-way data, Internet, intranet, fax and voice transmission. With the completion of the Spacenet acquisition, we now offer the full range of end-to-end products and services described below.

VSAT Products

The following table sets forth our current product lines:

Products by VSAT Market Segment

<u>Segment</u>	<u>Products/Application</u>	
Data	SkyStar Advantage	ISAT → Web Sat
	—Interactive	—Frame Relay
Telephony and Voice	FaraWay	DialAway
	—Satellite Telephony	—Rural Telephony
Internet	SkySurfer	SkyBlaster
	—One-way Internet Access	—Two-way Internet Access

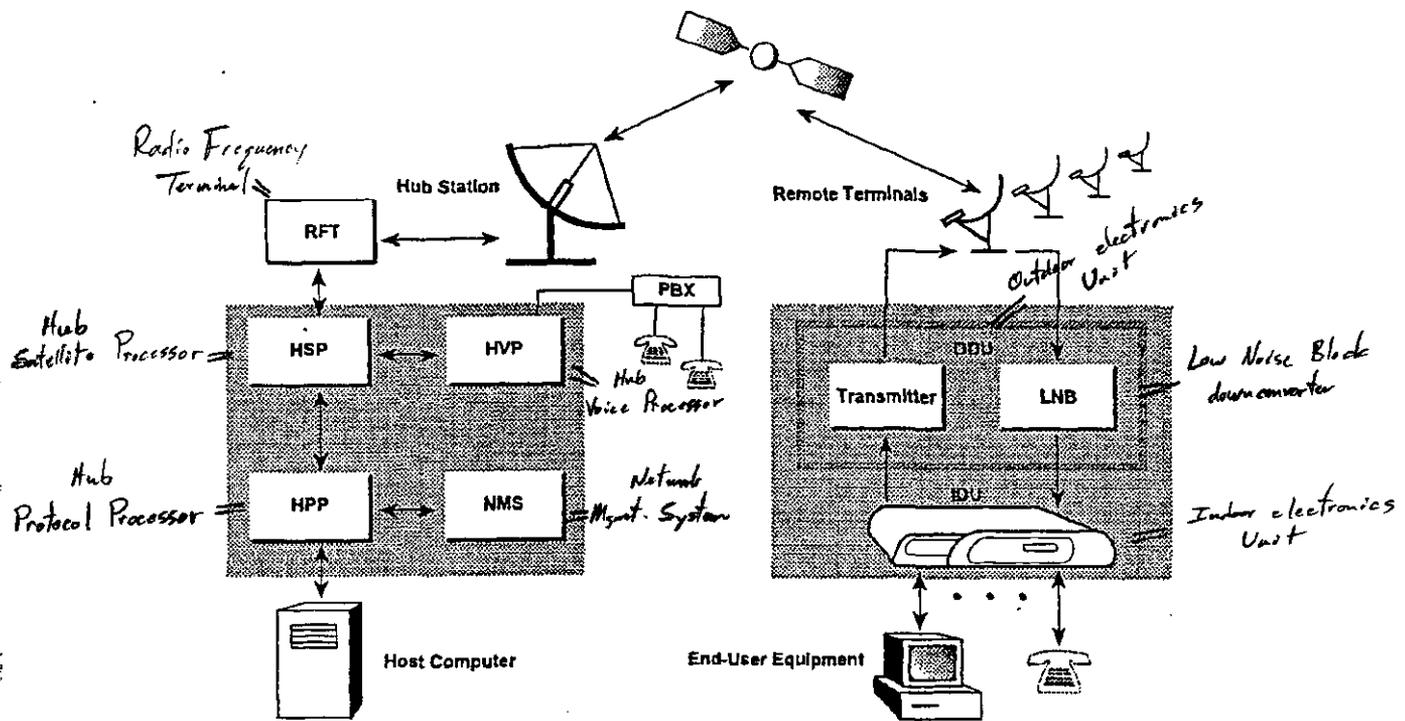
discontinued
Also discontinued Clearlink
OneWay and Broadcast Receivers Gilt Florida
—Data Broadcast Unidirectional VSAT

We are now focusing on providing one platform for interactive VSAT products and on consolidating our other product offerings to meet current customer demand. We have therefore discontinued our original OneWay product line, as well as several product lines previously marketed by Spacenet and its predecessors (such as the Clearlink product line), although we continue to support existing customers of those products.

Data Delivery Products:

Skystar Advantage VSAT. Our Skystar Advantage VSAT product, when integrated into a network, is used in transaction-oriented, point-to-multipoint satellite communication networks. The Skystar Advantage VSAT is designed to enable reliable and cost-effective interactive communications between a central hub and several tens to several thousand geographically dispersed sites. The applications currently served by our products include the following: credit and debit card authorization for retail sales; point-of-sale information and ATM networks; on-line recording and validation of lottery tickets; prescription verification, inventory control and review of customer profiles; inventory control and delivery scheduling at the manufacturing level; supervisory control and data acquisition networks for oil and gas pipelines; on-line remote stock exchange trading for brokers; distance learning and Internet access. A single voice channel add-on feature is also available. The Skystar Advantage VSAT also permits the delivery of value-added services such as video broadcasting applications which are offered by other vendors.

As of December 31, 1998 we had shipped approximately 69,500 Skystar Advantage VSATs to customers worldwide.



Architecture. As shown above, our Skystar Advantage VSAT product consists of remote terminals, hub equipment and related software. Our remote terminal consists of a small outdoor antenna (typically 0.95 to 1.2 meters in diameter for the Ku-band frequency and 1.8 to 2.4 meters in diameter for the C-band frequency), an outdoor electronics unit ("ODU") and an indoor electronics unit ("IDU"). The ODU receives signals from a satellite transponder using a Low Noise Block ("LNB") frequency down-converter and transmits signals to the satellite transponder using our proprietary frequency up-converter and power amplifier. The IDU incorporates a satellite modem utilizing digital signal processing technology and a powerful central processing unit ("CPU"). The CPU controls communications through the satellite (including the satellite access scheme) and provides the platform for interface to the end-user's remote terminal equipment. The small antenna typically is supplied by a third-party vendor or purchased directly by our customer. We design and manufacture the IDU, design and integrate the ODU and supply that part of the software (the connectivity software) that, among other things, controls the satellite access scheme.

The hub for the network incorporating our Skystar Advantage VSAT products consists of a radio frequency terminal ("RFT") and baseband equipment. The RFT incorporates a large dish antenna (typically 4.5 to 11 meters) and RF electronics equipment (up and down frequency converters, low noise amplifiers and high power amplifiers). The baseband equipment is comprised of the hub satellite processor ("HSP"), hub protocol processor ("HPP") and network management system ("NMS"). The HSP hardware provides the communication connectivity to the remote terminals and the HPP provides the

not manufactured by Gilat

interface between the HSP and the customer host computer running end-user applications. The NMS monitors and controls all the remote terminals and the hub equipment. We design and manufacture the HSP software and hardware. The RFT is typically provided by third-party vendors. The HPP and NMS are provided by us in the Skystar Advantage network, and by GTECH in its VSAT network, which is known as "GSAT."

Features. Our Skystar Advantage VSAT product utilizes a patented two-dimensional, random satellite access scheme that enables us to use low-cost ODU hardware and allows the VSAT network to handle momentary peak traffic loads without any significant degradation of response time. The Skystar Advantage VSAT now offers a feature enabling Internet connectivity, and an internal single voice channel capability, enabling voice communication between the hub site and a remote location. A VSAT network incorporating our Skystar Advantage VSAT product can offer features including: low-cost terminal equipment; rapid response time; high network availability; small antenna size which allows for easy installation and maintenance; very low transmission error rate; high hardware reliability; a variety of customer interfaces such as local area networks ("LAN") (e.g., Token-Ring and Ethernet); and flexible architecture (support for commonly used data communications protocols, including X.25, SNA/SDLC, ASYNC and TCP/IP; easy integration of additional value-added services such as data, audio and video broadcasting; and modular design that enables easy and staged network expansion).

Rogers

New Product Under Development. A major value-enhancing asset acquired in the Spacenet acquisition is the technology developed by Spacenet as part of its planned new Turbosat product. We plan to utilize the Turbosat technology in a new product. The Turbosat technology, though not yet fully developed, is intended to increase throughput, expand product features to serve additional applications and reduce cost. The technology will also accommodate changes in customers' performance and application requirements through its ability to be upgraded to a satellite multimedia platform or a terrestrial router. Other distinguishing features are its advanced level capability for data, audio and video broadcasting.

One of the most important features of the acquired Turbosat technology is that it enables a wide range of flexibility through the application of spread spectrum and CDMA technologies as the satellite access method. The acquired technology includes a patent for the use of these features in two-way VSAT applications. These patented technologies can enable the production of a VSAT system capable of deploying transmit/receive remote antennas as small as 0.47 meter in diameter without overstepping FCC adjacent satellite interference regulations and of allowing inbound data rates up to 1.7 Mbps through the use of larger antennas. The potential integration of CDMA technology into our new VSAT platform remains one of the serious hurdles to successfully completing the full development of the Turbosat technology.

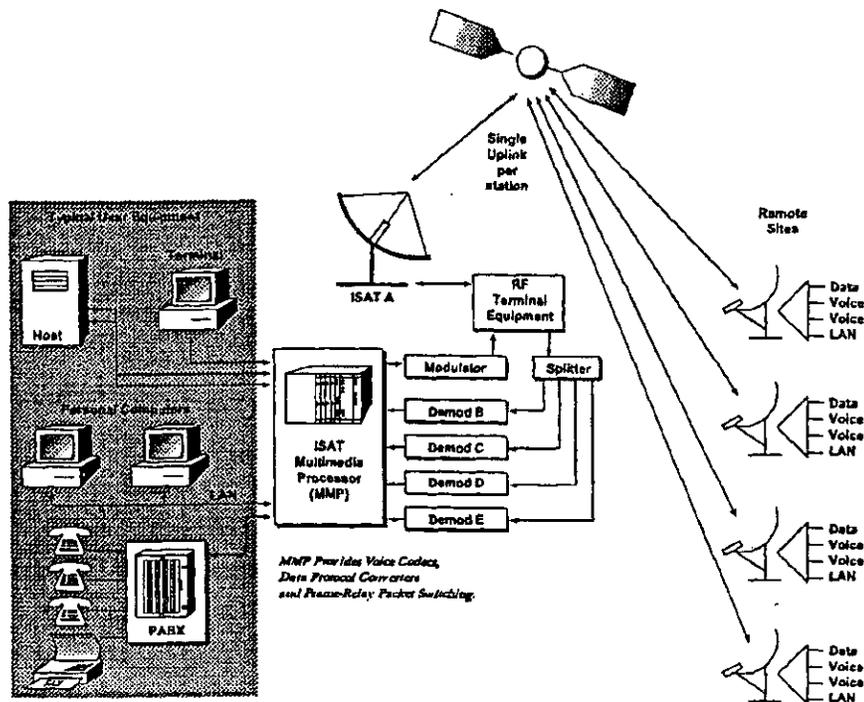
In addition, the use of innovative concatenated forward error correction coding techniques coupled with the use of other coding technology, the capacity for scalable network data rates and an innovative mechanism to reduce the size of satellite transmission units will enable the product to have other advantages. For example, unlike typical networks which jump in large steps (i.e., 256 kbps, 512 kbps or 1MB) and offer only a few choices for data rates, these technologies enable data rates to match users' needs more accurately. Consequently, satellite space segment capacity can be expanded in an incremental and cost-effective manner while the reduction in satellite transmission unit size provides for more efficient use of space segment capacity. Another important feature developed as part of the Turbosat technology is a significant software improvement which will replace the traditional Skystar Advantage software solution to hub-VSAT dialogue and enable relatively quick adaptation of customer protocols demands.

We believe that there is no VSAT system which is currently commercially available that has these capabilities and upon completion of their development our management believes the Turbosat technology will enable us in the future to offer the most technologically advanced VSAT in the market.

Prior to the acquisition, Spacenet had incurred approximately \$20 million in Turbosat development-related costs. We estimated that the Turbosat project was 70% complete at the time of the acquisition. Since the acquisition, the research and development of Turbosat technology has progressed, with most of Turbosat's improved functionality and features completed and the technology integrated (other than CDMA) into a new product platform, Skystar Advantage TG (Turbo Generation), which is being implemented for the USPS network. See "Customers - USPS Transaction." Management estimates that the remaining Turbosat technology development will be completed during the fourth quarter of 1999 excluding integration of the CDMA technology, for which we are directing research and development activities over the next 12 months. At the time of the acquisition, we estimated that the additional cost to complete the Turbosat technology would be \$6 million, which continues to be management's estimate. To the extent successfully completed, the new product incorporating the Turbosat feature set will be marketed by us under the Skystar Advantage trademark while maintaining backward compatibility. In developing our financial projections of future revenues and costs, we included the positive impact of the introduction of the new Skystar Advantage with Turbosat feature set on our future earnings estimates and our capability to expand in new markets, including the small home office market. We are reasonably confident in the successful completion of the development of the Turbosat technology. Should we be unable to complete development of certain aspects of the Turbosat technology, we could suffer a negative impact to our financial condition. See "Risk Factors—Risks associated with new product research and development in process at Spacenet", "Item 9: Management Discussion and Analysis of Financial Condition and Results of Operations - In-Process Research and Development".

Financial forecasts

ISAT™. Our ISAT networking products are designed to provide high-end solutions for voice, fax and data communications for small-to-medium VSAT networks. ISAT uses a sophisticated frame relay switching engine and a patented satellite access technique to implement full or partial mesh or star topology networks. A mesh configuration allows "single hop" connection of subscribers' equipment by which remote terminals can communicate with one another without going through the hub. In a star configuration, remote terminals are connected only through the hub, with some delay in communication whenever two remote terminals communicate with each other. We offer ISAT networks to 2 types of customers. The first typically requires voice and data connectivity between 3 to 20 stations in a single-hop, full mesh network, usually to implement a private voice and LAN network between offices or factories to bypass often unreliable local phone service. The second type of customer requires similar services, but needs connectivity between 3 to 50 stations and a single hub location in a star or partial mesh type network.



Architecture. An ISAT network consists of several remote terminals and a PC-based NMS installed at one of the network terminals for network status and software control of data rates and other network parameters. The remote terminal consists of a small outdoor antenna (typically 1.2 to 3.8 meters), an RF transceiver for Ku-band and C-band reception and transmission, baseband equipment with a modulator and one or more demodulators, a control and routing unit incorporating a Multimedia Processor ("MMP") engine supporting voice, data, and LAN interfaces, and a Station Interface Unit to monitor and control interface between terminal equipment at each site and the master station network management software. ISAT systems use a "Frame Relay" protocol for transferring messages over the network. At each terminal, outgoing packets are statistically multiplexed into a single data stream by the MMP. The data stream is then converted into a single outbound modulated carrier and transmitted to the satellite for rebroadcast. Each ISAT carrier operates on a discrete, assigned satellite frequency.

In a full or partial mesh network, each terminal has demodulator equipment to receive carriers from each of the other network terminals with which direct communication is needed. The star equipment configuration is identical to the full mesh, except remote terminals require a demodulator only for the master terminal signal. The data rate transmitted over the satellite from each terminal is set to match the traffic requirements of the station. Standard ISAT equipment provides software-programmable rates over the range 9.6 kilobits per second to over 2 megabits per second. Different terminals within a network may have different rates to accommodate unique site traffic requirements.

Features. ISAT networks can be provided with a Demand Assigned Multiple Access ("DAMA") overlay, allowing occasional connectivity to be established as required between star-type remote stations, for voice networks with only occasional voice requirements between stations. ISAT terminals feature high hardware reliability; easy installation and maintenance; a variety of customer interfaces; and flexible architecture.

We have developed WebSat™ as an enhancement to ISAT, for Internet and Intranet connections. With WebSat, ISAT integrates an IP accelerator to overcome typical satellite speed limitations for IP data and manages data flow from multiple connections using Quality of Service bandwidth controls. Our current development efforts for the ISAT are directed towards cost reduction and replacement of outsourced components with devices that we have developed and produced.

As of December 31, 1998, we had shipped approximately 350 ISAT terminals to customers worldwide.

Unidirectional Data Broadcast (OneWay VSAT and Gilat Florida's Receiver). Gilat Florida's VSAT products as well as our original OneWay VSAT product are used in point-to-multipoint, satellite communication networks and are designed to provide reliable and cost-effective unidirectional data broadcasts from a central hub to a large number of geographically dispersed sites (from several dozen to several thousand). The networks may be configured to broadcast from one data feed in a "clear channel" configuration to numerous separate data feeds in a multiplexed configuration. We offer the multiplexed configuration for customers who need to aggregate multiple information feeds for distribution to numerous sites, such as information service providers.

The OneWay VSAT currently is being used at locations worldwide for applications including financial information distribution for stock exchange and other financial information service providers, newswire transmissions for news agencies and paging for network operators. Gilat Florida's VSAT networks are used worldwide for paging and newswire applications. We are now focusing on Gilat Florida's unidirectional product line and are discontinuing our original OneWay product, although we intend to continue to support existing customers.

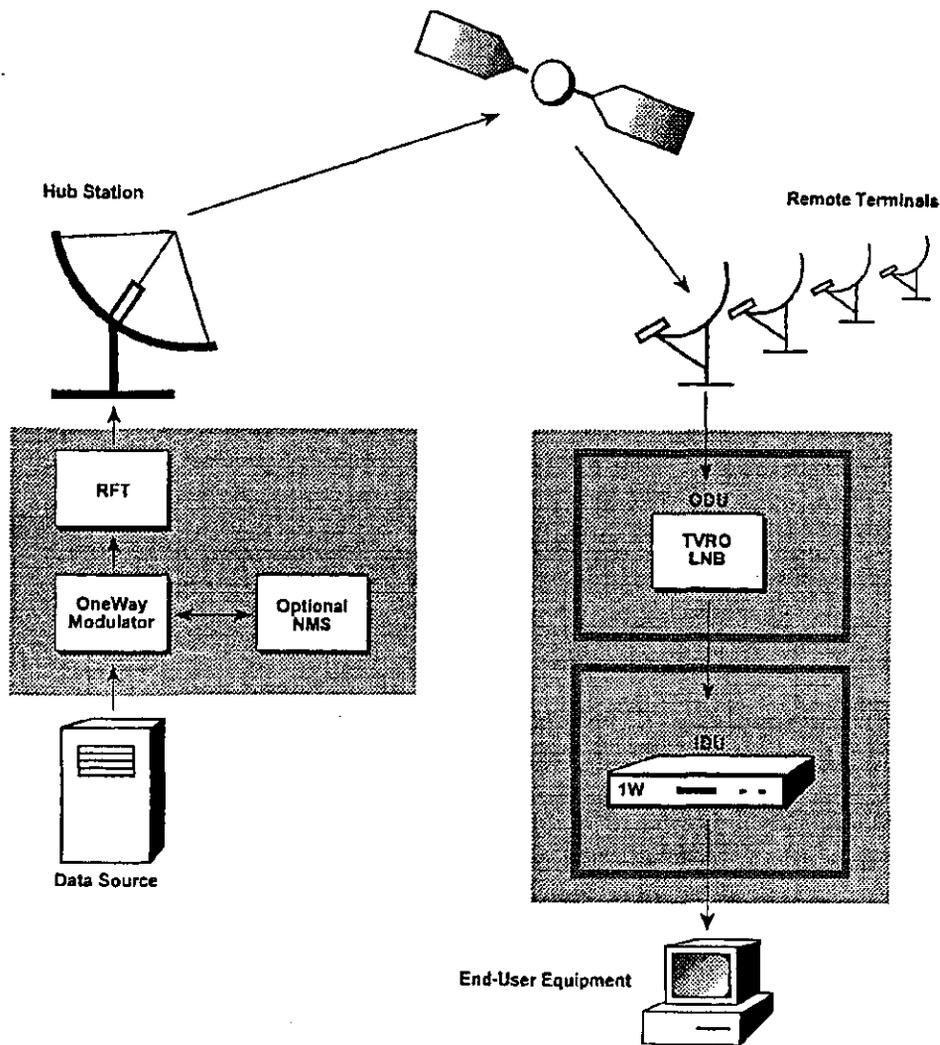
Gilat Florida's VSAT Architecture. The Gilat Florida line of broadcast receivers is focused on the unique needs of the paging and wireless community. A typical Gilat Florida paging network consists of a central hub facility and multiple receive-only remote stations. The hub generally uses a 3.7 meter antenna for C- or Ku-Band systems, redundant RF transceivers and power amplifiers, and redundant baseband modulation equipment. In some applications, business networking services are also provided through the central hub using ISAT equipment. A receive-only remote station consists of a small antenna, usually 1.0 m in Ku-Band or 1.8 m in C-Band, an LNB, cable and a Gilat Florida broadcast receiver. The data stream from the receiver is connected to a high powered paging transmitter, providing the final link to customer pagers. For multiplexed service, a multiplexer is added to the hub and a demultiplexer is added to each receiver.

Gilat Florida's VSAT Features. Gilat Florida receivers offer performance specifications that allow implementation of simulcast paging systems. The Gilat Florida receivers feature high stability; low jitter operation with high hardware reliability; operation at low link levels for customer service during severe weather conditions; wide data rate capability, offering data rates from 9.6 kilobits per second to 2 megabits per second; and the ability to vary the data rate or satellite frequency using commands loaded over the satellite from the hub, thereby allowing reconfiguration of the satellite system over time.

Our current development efforts for the Gilat Florida receivers are directed to improving performance, to adding new features such as upgrading to interactive capability and to continuing to reduce the cost of the product.

As of December 31, 1998, we had shipped approximately 19,250 of our Gilat Florida receivers to customers worldwide.

OneWay VSAT Architecture. A OneWay VSAT network consists of a central hub, a satellite and numerous receive-only remote terminals that can support either a clear channel or multiplexed configuration. Our OneWay remote terminal consists of a small standard television receive-only ("TVRO") antenna (typically 60 centimeters to 1.2 meters in diameter), an ODU and an IDU, which incorporates the OneWay VSAT receiver. The ODU consists of an LNB that receives transmission signals from a satellite transponder and down-converts the signals to the IDU. The IDU's principal functions are to demodulate and provide error correction to the incoming signal so that it can be used by the end-user's equipment. In the multiplexed configuration, the multiple information feeds are aggregated into a single satellite signal which is then transmitted through the satellite and separated at the remote terminal by our demultiplexer, embedded in the IDU. Our "PageReceiver" is equipped with a synchronous demultiplexer, which, when used with the multiplexer at the hub, offers a solution for large paging networks. We design and manufacture the OneWay transmitter, receiver and demultiplexer and integrate the other network components.



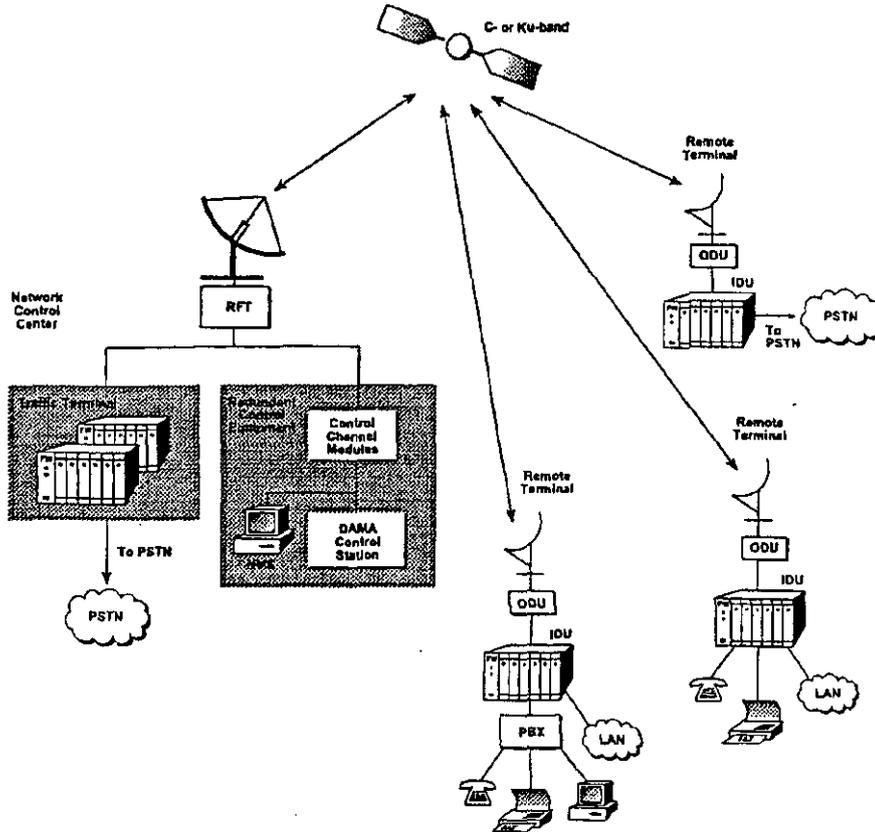
As of December 31, 1998, we had shipped approximately 20,650 of our OneWay VSAT terminals to customers worldwide, although we have discontinued this product line in favor of the Gilat Florida unidirectional VSAT product line.

Telephony and Voice Products:

FaraWay VSAT. Gilat and the predecessor of ParaGea Communications, COMSAT RSI, are parties to a joint venture for the development of the FaraWay VSAT, a satellite telephony VSAT which provides mesh connectivity, voice and data services via satellite to remote locations and other areas that lack adequate telecommunications infrastructure. FaraWay VSATs are intended to provide:

- A reliable telecommunications network (with fax and data capabilities) for corporate and business users in developing countries that have minimal or no telecommunications infrastructure

- Basic multi-channel toll quality telephone service to geographically isolated rural residential areas in developing countries
- Cost-effective telephone service that can be installed quickly for temporary remote installations (e.g., oil and gas exploration sites, small rural government agencies and new factories) until terrestrial services are available.



Architecture. The FaraWay telephony product employs a unique VSAT architecture and satellite access scheme and supports either a mesh or star configuration utilizing DAMA for more efficient use of the satellite. The product architecture permits connections to either private telephone equipment, pay telephones, small private switches or a public switch, and data terminals, as well as to any combination of this equipment. A Data Interface Module ("DIM") enables high data rate applications in both star and mesh configurations.

The remote terminal of the FaraWay includes a dish antenna (typically 1.8 to 3.7 meters in diameter), an ODU and an IDU. The IDU connects directly to subscribers' telephone equipment or central office. The FaraWay hub, which may be connected to a public switch, includes a large dish antenna (typically 4.6 to 13 meters in diameter), RF electronics, a network resource and call-processing controller, an NMS, a call accounting computer and traffic terminal. The network resource controller assigns satellite frequencies to the equipment at both ends of the communication link; the NMS monitors and controls the

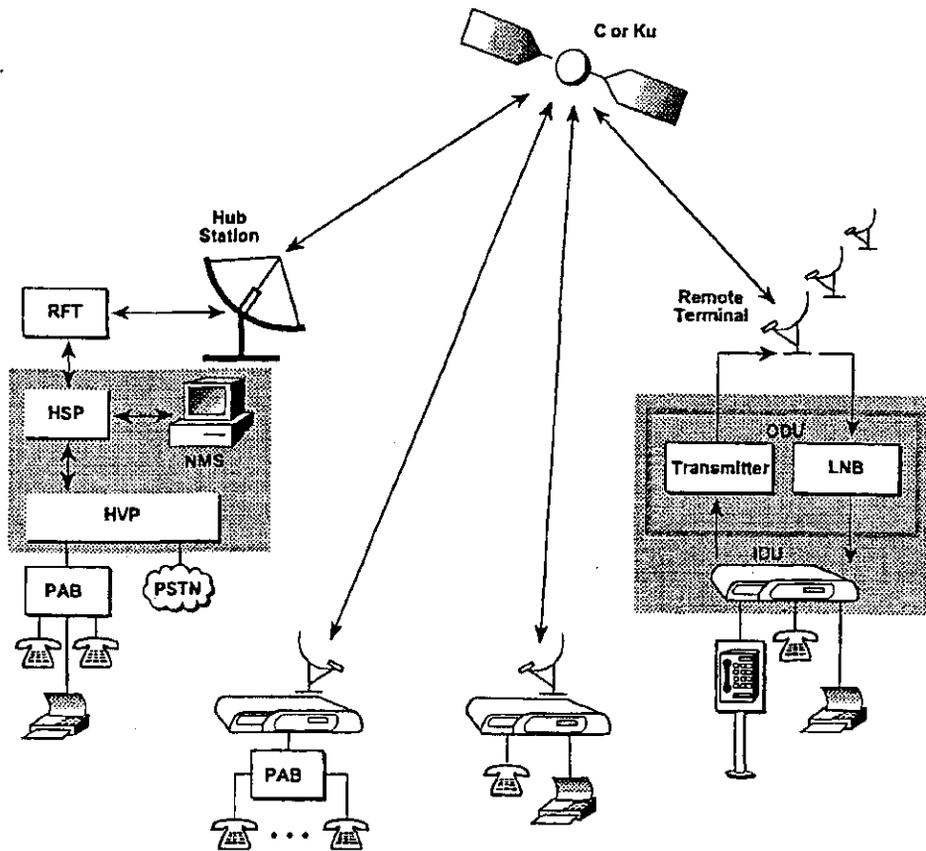
overall network; the call accounting computer provides data for external network billing; and the traffic terminal provides the hub's interface to the public switch.

Features. The FaraWay VSAT offers a cost-effective, flexible solution for connecting 2-40 telephone lines from a public switch to a local PABX switch or directly to subscribers' premises via satellite and to support voice, fax and high data rate applications. The product features include: Ku-band and C-band frequency operation; flexible interfaces including different signaling systems; support of up to 3,200 simultaneous telephone calls and 25,000 telephone circuits; and ITU-approved 16 and 8 kilobit per second voice encoding.

Our current development efforts for the FaraWay VSAT are directed towards development of a PC Network Terminal ("PC NT") -based NMS and additional FaraWay product features and enhancements.

As of December 31, 1998, we had shipped approximately 990 FaraWay VSATs to customers.

DialAway VSAT. Our DialAway VSAT product is intended to provide inexpensive, near toll quality dial tone telephone service for voice and fax communication for small businesses and villages in remote or urban areas lacking an adequate telephone infrastructure. The product has been designed to offer subscriber or pay telephone public call offices and up to 3 lines. Our rural telephony product operates in a star configuration in which the remote terminals communicate with one or several hub sites. The product operates with a single tier architecture in which all network users receive the same grade of service and limited fax capability. We believe that the cost benefits of the new product with the star configuration will meet the more limited service needs of the targeted rural telephony users, who to date generally have been without any service.



Architecture. A DialAway network consists of a central hub, satellite channels and remote terminals. A remote terminal consists of a small outdoor antenna (typically 0.98 to 1.2 meters), an ODU and our IDU with one to three telephony extension cards. The hub consists of an RFT and baseband equipment. The RFT incorporates a large dish antenna (typically 4.5 to 11 meters) and RF electronics equipment (up and down frequency converters, low noise amplifiers and high power amplifiers). The baseband includes an HSP, a Hub Voice Processor ("HVP") with voice cards, and an NMS. The NMS monitors and controls all the remote terminals and the hub equipment. The hub design permits easy incorporation of new features, as well as independent sizing for inbound (remote to hub) and outbound (hub to remote) bandwidths.

With the DialAway, the analog voice input is digitized and compressed to 4.8 or 6.4 kilobits per second. The compressed voice is organized into packets and transmitted to the hub or to another remote VSAT via the satellite. At the destination, a voice/fax card decodes the incoming voice packets into digitized voice which is then reconverted into analog form.

Features. Our DialAway VSAT product offers such features as full support of telephone line services; call data processing; low cost; simple installation and operation; high hardware reliability; remote control and monitoring; and low power consumption. In 1998, we completed the development of a PC NT-based NMS.

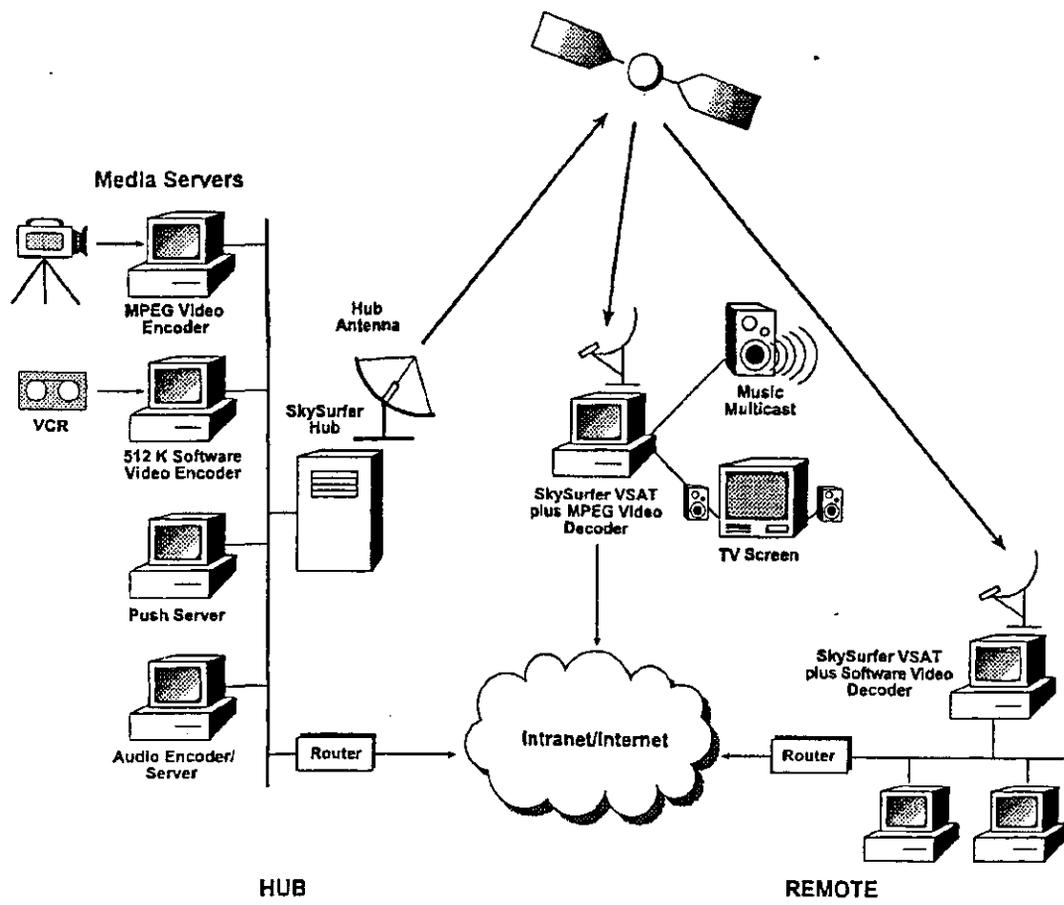
Our current development efforts for the DialAway are directed towards development of certain product features, including multi-star gateways to enable multiple PSTN interconnections, mesh configuration, enhanced NMS and improved functionality. We expect to continue the development of such features, enhance the product capabilities and reduce costs per line and per minute over the next 12 months, although the development efforts may not be completed within the current schedule or with the features anticipated.

As of December 31, 1998, we had shipped approximately 5,100 DialAway VSATs.

IP-Based Products:

SkySurfer VSAT. Our SkySurfer VSAT receiver product is a PC-based Digital Video Broadcast ("DVB") satellite receiver used in IP environments to provide satellite-based multicast and unicast communications. The SkySurfer is designed to stream IP traffic from a central site to a large number of geographically dispersed remote sites. It is an open IP platform that enables easy integration of any IP-based application. SkySurfer can be deployed as an overlay to existing networks or as new infrastructure for end-to-end enterprise solutions. The main applications running on SkySurfer networks are web-based interactive corporate training and distance learning, interactive business television, multicast video and audio streaming, broadband Intranet/Internet access and reliable push based applications.

The SkySurfer remote unit receives high bit-rate traffic via satellite (from 2 to 40 Mbps) and currently utilizes the user's return path (terrestrial or VSAT) for transmission. The SkySurfer hub provides users with a scalable 2-40 Mbps channel for IP traffic.



Architecture. The SkySurfer VSAT consists of a central transmission hub and the remote SkySurfer receiver cards. The central hub consists of several Hub Transmission Servers ("HTS") which receive the content from the server at the central site or anywhere over the Internet. Each HTS is a PC server running applications that we developed. The HTS transmits the data to the satellite modulator which converts the data to the intermediate frequency ("IF") range. The output of the modulator is transmitted to the satellite by standard RF transmission equipment. Our NMS, situated at the transmission site, controls the parameters of the hub and remote SkySurfer units.

The remote SkySurfer VSAT consists of (i) a 32-bit PCI adapter card that fits in any standard PC and enables receipt of high-speed data (up to 40 Mbps) by a PC or LAN server, (ii) a small outdoor antenna and (iii) an LNB. A return path can be established over any existing terrestrial or two-way VSAT connection.

Current research and development efforts on the SkySurfer are intended to improve its functionality as well as the NMS capabilities, increase throughput and effective data bit rates and reduce costs.

As of December 31, 1998, approximately 10,750 of our SkySurfer VSATs had been shipped to customers worldwide.

Features. For interactive business television and corporate communications, we offer IP-based multicast and Intranet technologies that provide interactive business television with Movie Picture Expert Group ("MPEG") decoding quality. We provide a turnkey solution, beginning with the customer's video source, continuing with the video encoding server (including the IP multicast data layer) and ending with the video decoder card.

For corporate training, using third party proprietary training technology, SkySurfer enables full broadband software video decoding with multicast capabilities for on-line training to hundreds of employee LANs and PCs simultaneously.

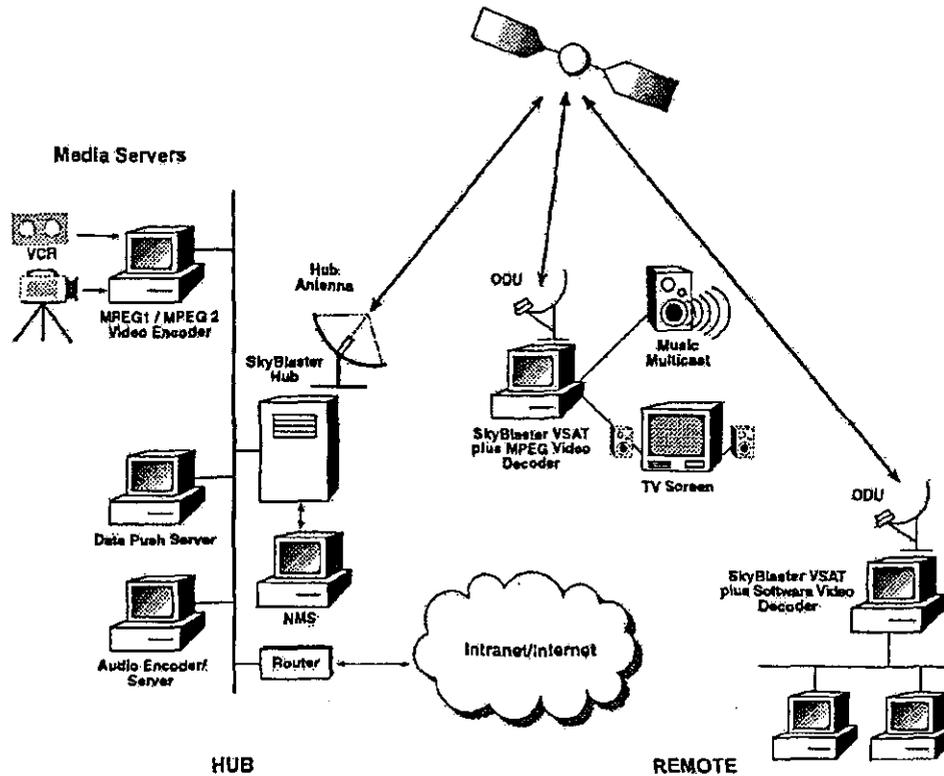
For push-based applications, SkySurfer, which we bundle with third party technology, offers an integrated end-to-end push client server solution, optimized for satellite delivery and IP multicast. This integrated solution allows companies to deliver corporate information and software from a variety of sources and to notify employees and management of its availability.

For broadband Intranet/Internet access, SkySurfer—using Gilat's IP spoofing technology—enables data rates of more than 1 Mbps, while accessing corporate Web servers or Internet sites. LAN users can also access the global Internet through the SkySurfer gateway, without installing SkySurfer at their PCs.

SkyBlaster VSAT. The SkyBlaster VSAT, introduced in January 1999, is our latest two-way IP-based product and consists of a DVB receiver card and a satellite transmitter PCI card as a return channel.

With our unique satellite return access scheme PC users will have access to fully interactive broadband VSATs on corporate LAN servers or PC desktops. SkyBlaster provides IP-based communications solutions for broadband corporate and public networks.

SkyBlaster features an open IP platform which supports applications developed by us or by third party vendors such as interactive corporate training; reliable data and video multicasting; interactive business television and reliable push-based applications.



Architecture. SkyBlaster VSAT combines two PCI cards:

- DVB receiver
- Satellite transmitter

The DVB receiver card supports a scalable bit rate of 2 to 40 Mbps. Inbound data can be transmitted at bit rates of 38.4 to 153.6 Kbps, using a unique Frequency Time Division Multiple Access ("FTDMA") satellite access scheme. The cards can be installed in any standard PC server, supporting data recasting over the LAN, or be provided as a stand-alone IDU. Research and development efforts are focused on increasing the bit rates to 76.8 to 307.2 Kbps by the end of 1999.

The hub station was designed for installation at the customer premises as a private hub. Alternately, a shared hub can be located at a service provider site. Single-tier architecture allows for PC connectivity directly to the application and media servers. As shown in the diagram, any media server connected to the hub, such as a video, audio or data push server, is allocated with a reserved committed bit-rate that guarantees high-speed accessibility. Therefore, multiple streams carrying video, audio and data can operate at the same time without interfering with one another. The hub station features:

- NMS (Network Management System)
- HTS (Hub Transmission Server)

- DVB IPE (IP Encapsulator)
- DVB Satellite Modulator
- HSP (Hub Satellite Processor)
- Conditional Access (security)
- Scheduling

Satellite Access. SkyBlaster uses a proprietary two-dimensional access scheme. This enables the use of low-cost ODU hardware, minimizes space segment use and allows the VSAT network to handle momentary peak traffic loads without significant degradation in response time. The network is immune to outages caused by frequency interference.

The unique FTDMA scheme provides no back off in time for retransmissions and consistent utilization of the entire bandwidth by all remote sites. The satellite access scheme, coupled with a transmit slot size that can be optimized to the network, provides superior network throughput stability and load balancing.