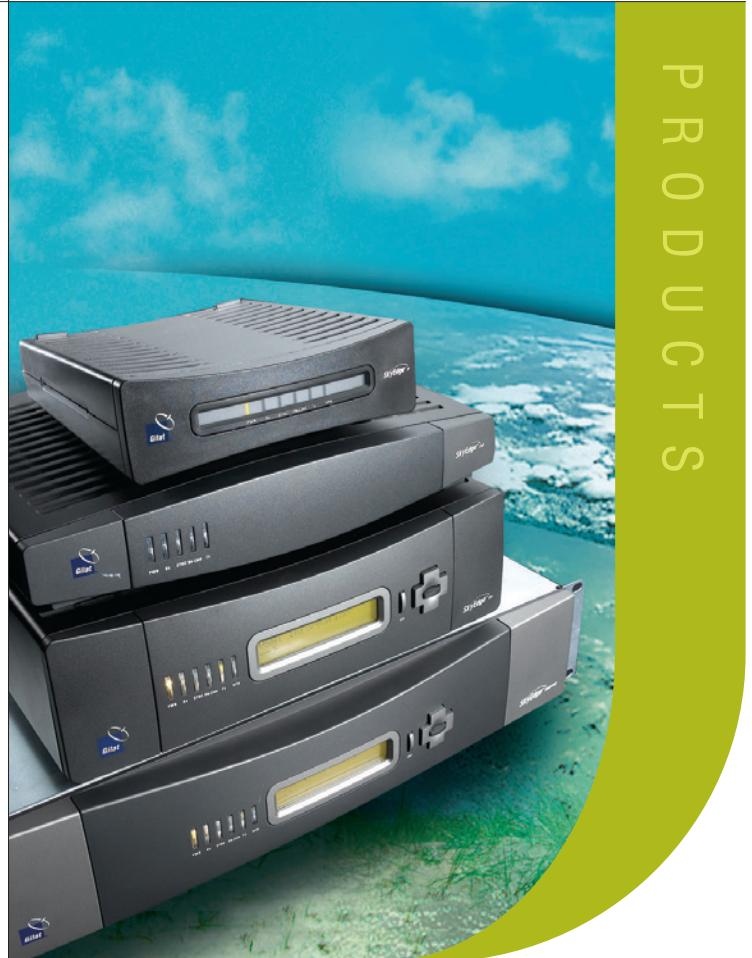


Benefits

- High performance
- Low Total Cost of Ownership
- True scalability
- Converged services with data, voice and multimedia on the same network
- End-to-end solutions and applications
- Worldwide product support
- Enhanced user experience
- Star, mesh and multi-star topologies
- Embedded QoS and security capabilities



The SkyEdge™ System revolutionizes the way operators and service providers do business. The SkyEdge System is a cost effective way to deliver all the communications services that enterprises, carriers, service providers and governments require, from interactive data to broadband IP to public and corporate telephony and beyond. Best of all, SkyEdge meets all your present and future business objectives, providing the option to deploy communications applications in all market segments. SkyEdge is the culmination of Gilat's two decades of

experience as a leader in VSAT network technology. Public and private organizations use SkyEdge to deliver their most demanding applications, relying on SkyEdge's attention to reliability, user experience and optimal usage of resources.

Whether you need to serve a residential broadband user, support secure IP connectivity within your organization or provide backhaul to a telephony trunk from a remote site, SkyEdge is the perfect solution for you.

One System. A World of Possibilities.

High Performance

No other system packs more powerful and sophisticated features into one platform. SkyEdge provides high performance using advanced technologies including broadband data rates, HTTP acceleration for improved user experience, and other methods to optimize telephone and data traffic for satellite networking.

Optimal Cost of Ownership

SkyEdge's customizable hub and suite of tailored VSATs mean that only required functionality is delivered. The modular system supports rapid installation, saving time and money. Advanced space segment efficiency features increase revenue by fitting more customers onto the same bandwidth.

Scalable

SkyEdge provides scalable solutions so networks with outbound carriers as small as 256 Kbps can grow as traffic requires.

Multiple Topologies

The SkyEdge System supports mesh, star and multi-star topologies for telephony and IP data.

Mesh IP minimizes delay, significantly improving VoIP and other applications needing high quality VSAT-to-VSAT connections. Multi-Star, a mix of star and mesh, provides direct communication between VSATs and regional gateways.

Satellite Diversity / Multiple Outbounds

SkyEdge provides higher flexibility, greater geographical coverage and major savings in capital expenditures by supporting multiple outbound channels or satellites from a single system. Service providers can cover more countries, support different transmission bands (C, Ku) or provide backup for satellite problems.

VoIP and Native Telephony Leadership

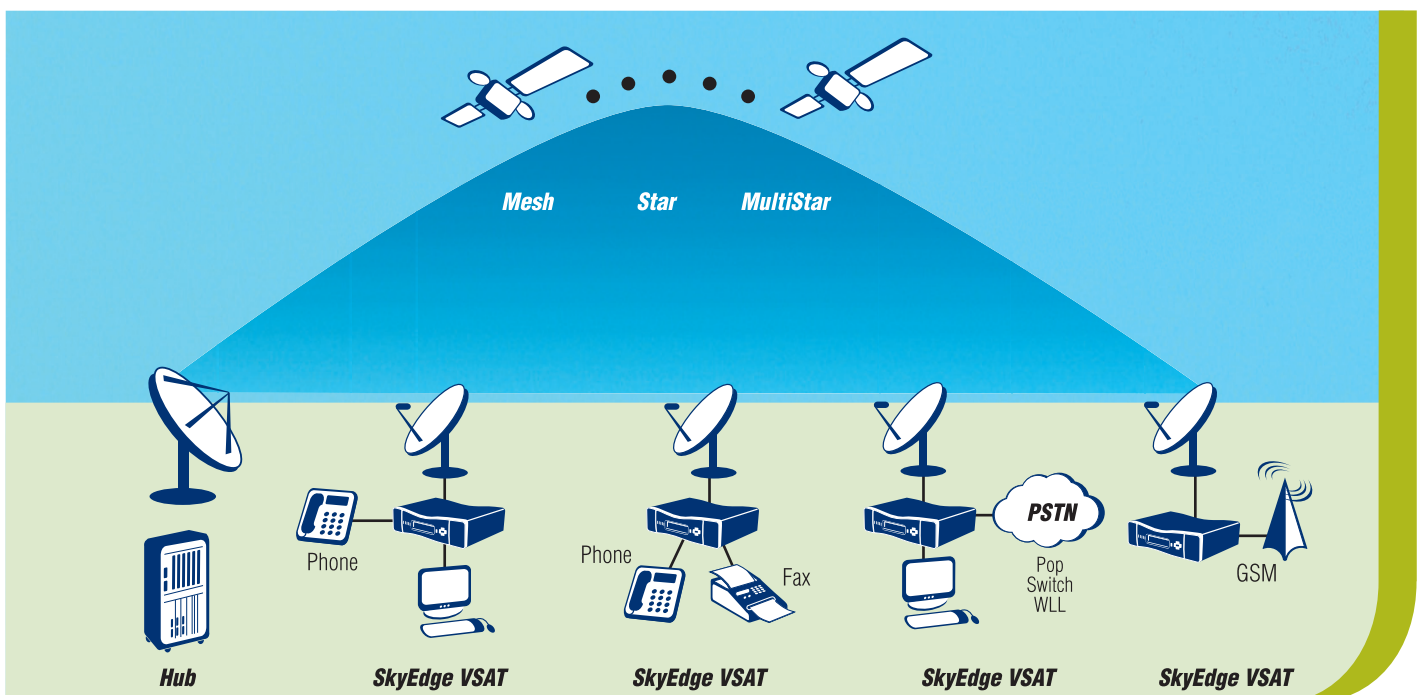
Gilat is the world leader in rural telephony. SkyEdge supports both circuit-switched and VoIP telephony on the same platform, assuring voice quality, grade-of-service and efficiency for all telephony needs.

SkyEdge includes all of Gilat's unparalleled satellite telephony innovations: toll quality voice, fax and in-band data support; mesh call routing; payphone support; advanced signaling for supplementary features; PSTN conforming numbering schemes; efficient space segment utilization; and fully-managed, low cost public telephony. The system supports full revenue flexibility, with usage, accounting and billing data and links for both prepaid and postpaid telephony.

IP Data Support

SkyEdge is the advanced data solution, with embedded IP routing capabilities for flexibility and support in a complex environment. Support for advanced standards, multicast, interactive broadband and legacy protocols makes SkyEdge the platform for diverse IP networking.

Multiple Applications / Multiple Topologies



QoS and MPN

SkyEdge's advanced QoS is designed to ensure the best quality for voice, video and data applications. By managing bandwidth per VSAT, user and application, SkyEdge supports flexible SLAs (Service Level Agreements), applications throttling and prioritization that support mission critical applications.

Managed Private Networks (MPN) are virtual partitions of satellite resources for separate customers or networks. The multi-tiered MPN gives an added layer of QoS to support SLAs. Customers can directly manage their MPNs using a remote NMS client without impact on other customers.

Embedded TCP & HTTP Acceleration

Web page and object pre-fetching, data compression and HTTP optimization combine to enhance transmission speed, saving bandwidth and increasing response time. Embedding acceleration within the VSATs also considerably reduces maintenance headaches and performance limitations incurred when those capabilities are on either a client computer or separate hardware.

Embedded VPN

Our VPN processor maintains full IPsec based security. By providing the VPN onboard the VSAT with TCP acceleration, rather than externally, TCP performance is improved while integration and maintenance issues are minimized. The integration also means the VPN is easily managed from the NMS.

Designed for Reliability

Gilat designs, builds and tests equipment not only for an air-conditioned office but also for extreme conditions. With an MTBF of over 100,000 hours, SkyEdge VSATs are designed to keep working. The SkyEdge Armadillo is a VSAT specifically designed for all-out-door installation, with a hardened all-weather case reliable in the harsh environments.

Low Power Modes

SkyEdge's low power modes provide power consumption of less than 20W for bi-directional traffic, helping operators minimize solar or other alternative energy sources often required to power VSATs in remote regions.

Remote Software Installation & Upgrade

A new SkyEdge VSAT need only be locally configured with simple outbound parameters and then all operational software is automatically downloaded from the hub. Hub operators can also set parameters for automatic VSAT software updates. The latest versions of VSAT software can then be propagated to all VSATs without operator intervention.

Diverse Markets, Superior Offerings

Enterprise

Gilat focuses on solutions for enterprises and industry specific applications, offering the benefits of speed, reliability, security and performance.

National Carriers

The SkyEdge System's comprehensive telecom solution enables national carriers to extend communication services to remote regions quickly and economically while remaining competitive in a highly volatile market.

Broadband and Internet Service Providers

Whether a service provider is targeting governmental, enterprise, SME, SOHO or consumer markets, it will enjoy the added benefits of SkyEdge, including advanced shared-hub functionality, Managed Private Networks and support for all size networks

Governments

Gilat works closely with government entities to overcome infrastructure hurdles, save money and serve their citizens' diverse communication needs such as rural telecom projects, e-post, government subsidized Internet access and other e-government services.



Market Specific Solutions

Cisco Satellite Communication Solution

Companies can now easily extend business continuity, disaster recovery and content distribution from their existing Cisco routers through satellite networks. The Cisco VSAT NM works with the SkyEdge Hub to seamlessly provide interoperability between Cisco routers via satellites.

Cellular Backhaul

SkyAbis™ is a superior solution for GSM and CDMA2000, lowering satellite costs by up to 80% over SCPC links. It transparently connects cells to the network in an efficient manner, while maintaining high quality voice and data services. SkyAbis works in shared hub environments as another service from satellite hub operators.

Rapid Deployment

Gilat transportable solutions combine antennae and outdoor unit into a single package that can be mounted on a vehicle's roof or put inside a protective case, providing communications that can quickly be set up and providing communications wherever a vehicle can go.

GlobalLight® is a backpack unit perfect for first-responder emergency units, the military, quick deploy and exploration teams for enterprises, and other tasks requiring communications from mobile personnel.

e-Government

Gilat has experience with elections, e-post, education and other critical government initiatives. We have helped local service providers create satellite systems supporting those initiatives and are also capable of outsourcing the work for even more rapid rollout.

All Outdoor VSAT

The SkyEdge Armadillo VSAT is weather-proofed, perfect for the most rugged outdoor conditions. SCADA, video surveillance and other applications requiring well protected outdoor devices have a fully functional VSAT with an integrated heater, fans, ruggedized components and a special waterproof enclosure.



The SkyEdge™ System

SkyEdge offers a high performance, cost effective way to deliver all communications services, from interactive data to broadband IP, public and corporate telephony and beyond.

SkyEdge Hub

The SkyEdge Hub is a flexible, scalable facility providing network operators, both service providers and dedicated network owners, a unified communications network customizable for individual needs. The SkyEdge Hub works with the full range of IP and PSTN applications and supports thousands of VSATs.











The SkyEdge Basic Hub is an optimal entry point for IP only satellite communications, providing a maximum outbound of 8 Mbps.

SkyEdge NMS

The SkyEdge NMS gives operators multi-tasking, central monitoring and control of the entire communications network. Real-time monitoring with graphics and alarms instantly notifies operators of issues before they're critical. Network information is also available through SNMP or XML queries.

SkyEdge VSAT Suite

The state-of-the-art two-way SkyEdge VSAT solutions offer unprecedented deployment and configuration versatility. The VSAT suite means a business need only purchase the appropriate VSAT for its use. Product life is also extended by the ability to tailor some VSATs with expansion cards, adding VSAT capabilities rather than requiring a new VSAT.

		Multi Service platform bundling interactive data, broadband IP & legacy, public and corporate telephony. It includes expansion slots for optional plug-in cards including quad LAN, voice and mesh.
		IP Router enabling interactive broadband IP, legacy and multicasting applications to individual or multiple business locations.
		Telephony platform providing full telephony capabilities for rural Universal Service Obligation (USO) and other governmental projects. SkyEdge Call has full PSTN telephony capability including toll-quality voice, fax and in-band data coupled with unique value-added features.
		Trunking Solutions platform, supports digital telephony with high capacity E1 connectivity to PSTN and IP networks. Its on-demand star and mesh trunking applications provide long-distance interconnect capabilities.
		All-outdoor VSAT, weather-proofed for the most rugged outdoor conditions with an integrated heater or fans, ruggedized components and a special waterproof enclosure. Able to operate in temperatures between -40° C and 60° C, the Armadillo opens new opportunities for VSAT solutions.

SkyEdge Specifications

General Features	
Number of VSATs	Up to 32,000
Frequency Band	C-band, Ku-band, extended C-band
Redundancy	Manual, Automatic and Geographical
Services	Data IP, Multicast and Unicast, Mesh IP, Star and Mesh Native Voice/ Video, Star and Mesh VoIP, Cellular backhaul
Virtual Private Hub	Up to 256 Managed Private Networks (MPN) groups

Inbound	
Access Scheme	MF-TDMA, slotted Aloha
BW Allocation	DAMA, PAMA, BoD and Random Access
Channel Rates	Flexible 60 Kbps to 2 Mbps, in 1kbps increments
Channel Modulation	Turbo coded GMSK, Adaptive inbound FEC ~3/4, ~7/8

Outbound	
Technology	DVB-S, QPSK Turbo Coding or 8-PSK Turbo Coding
Outbound Bit Rate	340 Kbps – 62 Mbps per OB 256 Kbps – 30 Msps, in 1kbps increments
Outbounds / Satellites	Up to 5, up to 80 Mbps per Hub
Coding	Reed- Solomon/Viterbi or Turbo coding
FEC rates	1/2, 2/3, 3/4, 5/6, 7/8, 8/9
Topology	Star, Multi Star, Mesh

Data	
IP Functionalities	TCP, UDP, RIP v1/v2, IRDP, ARP, ICMP, IGMP, PIM, DHCP (server/relay), NAT/PAT
Accelerations	TCP spoofing, HTTP, DNS acceleration, IPsec acceleration, compression
Security	DES, 3DES or AES-128 encryption
QoS	Priority per VSAT/application, QoS classification and enforcement per ToS, DiffServ (DSCP) with 13 QoS queues, MIR/CIR per VSAT and per group of VSATs
VLAN Tagging	802.1q
Ethernet LAN	100BaseT

Voice (Native support with SkyEdge Pro, Call or GW)	
General	Circuit switch voice, Mesh or Star with dedicated channels
Signaling	MFC-R2, SS7 (ISUP), PRI
Voice Coding	6.3 Kbps (ITU G.723.1), 8 Kbps (ITU G.729)
FAX	Group 3 Fax Relay Speed: T.38, Up to 14.4 kbps
Echo Canceling	ITU G.168 (up to 64 msec)
Payphone	Metering Pulses at 12/16KHz or reverse polarity
Additional Services	Prepaid voice solution (with IVR)
Trunking	E1 (ITU G.703, G704)
Calls per VSAT	Up to 31

Voice over IP	
General	VoIP in Star or Mesh topologies with up to 31 calls per VSAT
VoIP Optimization Methodology	IP/UDP/RTP header compression for IB and OB packets Managed VoIP with complete header removal (With integrated SSW) or Basic VoIP (with cRTP)
Main Standards	SIP, H.323, H.450, H.245, ITU T.38(fax)
PSTN Signaling	PRI, MFC-R2 or SS7
Voice Coding	6.3 Kbps (ITU G.723.1), 8 Kbps (ITU, G.729)
Subscriber Side	RJ-45 or RJ-11 (with VoIP GW) Standard IP phones or RGW

NMS	
Platform	Windows Server 2003 with SQL DB, Server – Client system
Standards	SNMPv2c, XML
GIS	Visualization of a network on a geographic map
VAPS	Auto-Pointing system for Transportable VSATs

Mechanical and compliances	
Dimensions	Starting from one 19" rack for Basic redundant hub
Power Consumption	AC 110/220V @ 50/60 Hz, typical 2 KVA (changes according configuration)
Operating Conditions	-5° to + 50° C, up to 90% relative humidity
Standards Compliance	EMC - ETSI EN 300 386, FCC CFR 47, Part 15, Safety - EN 60950, Company - ISO 9001



Why Gilat? With 20 years in operation, customers and offices worldwide, and world class partnerships, Gilat offers innovative satellite products, services and solutions. SkyEdge™ System is the comprehensive answer for global access to telecommunications, data and multimedia. Gilat helps enterprises, governments and carriers around the globe lower costs, improve performance and better help markets, customers and citizens.

• Corporate HQ (972) 3 925 2000 • Australia (61) 3 9866 6877 • Brazil (55) 21 2142 6600 • China (86) 10 6510 2838 • Colombia (57) 1600 3434 (114) • India (91) 11 2922 5478/6 • Indonesia (62) 21 526 7670 • Kazakhstan (7) 327 259 6575 • Mexico (52) 55 110 016 00 • North America (1) 703 848 1000 • Russia (7) 495 981 0965 • South Africa (27) 12 344 0240 • Thailand (66) 2 634 1780 www.gilat.com

The Gilat logo and SkyEdge are trademarks of Gilat Satellite Networks Ltd. or its subsidiaries. This brochure is being provided for informational purposes only. The details contained in this document, including product and feature specifications, are subject to change without notice and shall not bind Gilat to a specific product or set of features related thereto.