SkyEdge II NetEdge

SkyEdge II Dedicated High-Performance Multi-Star Satellite Gateway

High Performance Multi-Star Gateways

NetEdge is a breakthrough, high-performance satellite communications solution, specifically designed to meet the requirements of multi-star private networks for corporations as well as for cellular backhaul applications.

The NetEdge solution is composed of remote sites using SkyEdge II Access/Pro VSATs, NetEdge Gateways, and a SkyEdge II hub. Single-hop connectivity is provided network wide between the NetEdge components. This enhances the user experience and application performance for all intra-corporation, cellular backhaul and Internet traffic. MF-TDMA network wide shared access implies significant space segment saving compared to alternatives.

With a competitive price offering and bandwidth savings that can reach 30% and even more compared to SCPC solutions, NetEdge is a truly compelling solution offering network efficiency and best total cost of ownership.

Enhanced Capabilities

NetEdge is based on Gilat's market-leading SkyEdge II platform. SkyEdge II is a standards-based DVB-S2 ACM VSAT system with a multi dimensional DVB-RCS adaptive inbound that guarantees higher availability and more efficient use of satellite resources. The NetEdge Gateways support a forward channel of up to 8Mbps with up to eight return channels providing a total of up to 8Mbps and serving up to 100 remote sites.

The network is an all-IP network supporting data and voice as well as video and other applications. All components utilize Gilat's advanced protocol optimization technologies such as TCP and HTTP acceleration designed to improve browser and VoIP experience. Rich QoS mechanisms have been implemented to guarantee the required SLA for different users and applications.

Benefits

- Enables single-hop corporate services, cellular backhaul and Internet connectivity

- High Gateway to VSAT throughput – up to 8Mbps/8Mbps (forward/return)

- Higher availability based on adaptive DVB-S2 ACM and DVB-RCS ICM

- Mesh, star, and multi-star connectivity - up to 100 remote sites per Gateway

- DAMA MF-TDMA - up to 8 return channels per Gateway

Gilat

NetEdge Architecture

NetEdge is an expansion of a SkyEdge II hub, and adding more NetEdge Gateways is easy.
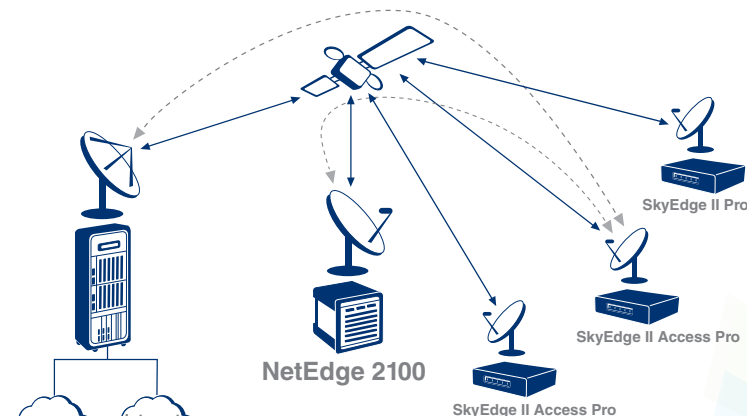
Each NetEdge micro-star network comprises a dedicated NetEdge Gateway (available in different size configurations) and SkyEdge II VSATS at the remote sites.

Each NetEdge Gateway includes one (or two for redundancy) transmit module and multiple receivers as well as optional add-on devices. The hub operator has complete management and control of the Gateway. In addition, the regional Gateway operator can have SVNO management access allowing local control.

Technical Specifications

Gateway			
Model	**NetEdge 2100**	**NetEdge 2500**	**NetEdge 2900**
Purpose	General	General	Cellular Backhaul
Redundancy	Cold Standby (Optional)	Automatic (Optional)	Automatic
Forward/Return	8Mbps*/4Mbps	8Mbps*/8Mbps	8Mbps*/8Mbps
Maximum Number of Sites	40	100	100
Topologies	Star, Multi-Star, Mesh	Star, Multi-Star, Mesh	Star, Multi-Star, Mesh
IP features	Multi VRF & VLAN, IPv6 ready, RIP, DHCP, NAT/PAT, IGMP, IP prioritization, ACL, DiffServ		
Phy & Access Scheme – Outbound/Inbound (from Hub)			
Outbound Hub to All	DVB-S2 ACM/CCM up to 45Msps		
Outbound Modulation	QPSK, 8PSK, 16APSK, 32APSK		
Outbound FEC	1/4, 1/3, 2/5, 1/2, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, LDPC and BCH		
Inbound Channels	Enhanced DVB-RCS with ICM Multi-Dimensional Adaptivity		
Phy & Access Scheme – Outbound/Inbound (from Gateway)			
Forward/Return	Enhanced DVB-RCS with ICM Multi-Dimensional Adaptivity		
Forward (from Gateway)y	Up to 4Msps		
Return (to Gateway)y	Up to 2.5Msps per VSAT		
Modulation	QPSK and 8PSK		
FEC	Turbo Coding 1/2, 2/3, 4/5, 6/7		
Environmental Conditions			
Operating Temperature	0° to $+50^\circ$ C		
Storage Temperature	-40° to $+70^\circ$ C		
Relative Humidity	Up to 90%		

*Current maximal forward rate is 5 Mbps based on 3Msps at 8PSK 4/5

SkyEdge II Pro

NetEdge 2100

SkyEdge II Access Pro

SkyEdge II Access Pro

PSTN

Internet Intranet

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