

GE
Satcom

Satlynx Direct



imagination at work

Satlynx Direct is an advanced satellite communications platform that can connect multiple remote sites, delivering highly available and robust networks anywhere in the world.

Satlynx Direct delivers efficiency in satellite bandwidth utilisation, via an IP routing system that prioritises voice, data and video traffic from each remote node back to the customer's hub location, by using the same shared or dedicated bandwidth.

Key Customers

- **Local and international private enterprises** that are seeking dedicated or shared bandwidth on a permanent basis or as a disaster recovery type solution. Satlynx Direct has already established itself as a proven technology in industries such as: Oil & Gas, Finance, Maritime, Retail and Healthcare
- **Government or publicly funded organisations** that require a securely encrypted and flexible satellite system during mission critical deployments
- **Telecom Carriers**, who need to expand their own customers' Internet, broadband and rural telephony connectivity. Satlynx Direct enables them to combine multiple applications, including voice-over-IP with the ultimate satellite technology
- **New operators** who are looking to succeed in their niche or regional markets by becoming Virtual Network Operators (VNOs) with the additional benefit of exceptionally low entry costs. Each Satlynx Direct VNO enables the autonomous streaming of end-user applications whilst providing operator control via the support of virtual network management tools

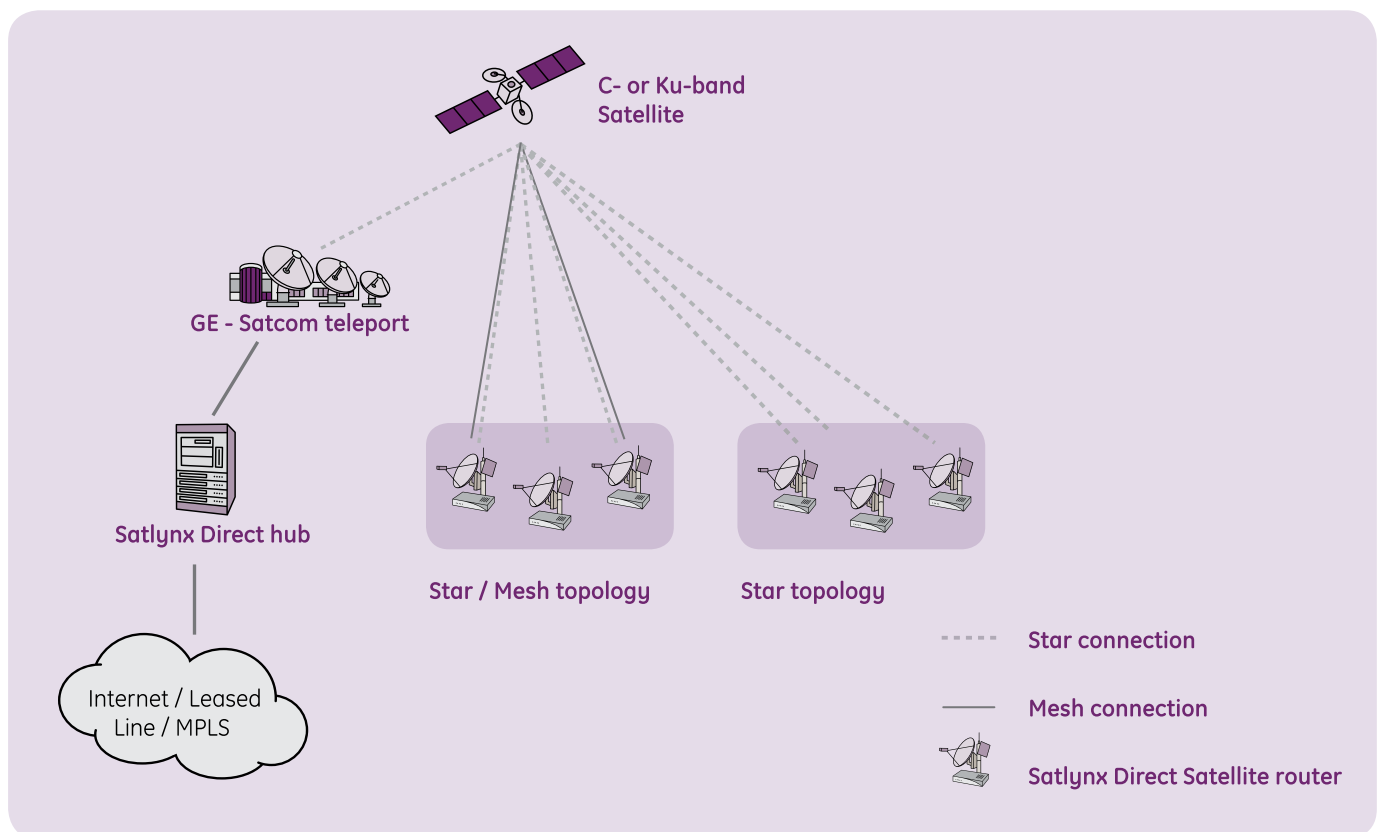
Main Advantages

- **Cost advantage** - Satlynx Direct eliminates any initial capital investment for customers, as they seamlessly share the same hub equipment located at the GE - Satcom teleport. In dedicated or VNO configuration only the minimum capital investment is required for customer owned equipment. Each user will be guaranteed a secure and independent network configuration
- **Class of service** - Satlynx Direct ensures that each remote site is pre-configured to specific bandwidth requirements as determined by the type of applications and the nature of the data stream received and transmitted from each location
- **Bandwidth optimisation** - Satlynx Direct (shared) is based on pre-defined service classes whereby each remote site is configured with a specific allocation of bandwidth and the network provisioned to a pre-defined overbooking ratio, hence reducing the whole network amount of satellite bandwidth needed for the overall network
- **IP-centric design** - Satlynx Direct offers the optimal performance when transmitting IP traffic over satellite as the system comprises hardware and software specifically designed for IP that incorporate TCP optimisation and satellite protocol QoS techniques. Customers also have a choice of private or public IP addressing schemes to coexist within new or existing networks

Application Requirement

- Secure transactions for affiliated sites
- Transmission of real-time data & voice from remote sites in the field, offsite drilling rigs and mobile/transportable exploration vehicles
- Military units maintaining force readiness with HQ-to-field communications and access to resource databases worldwide
- Communication of real-time data for emergency personnel in the field or at remote surgeries
- Immediate connectivity at sites of catastrophe for insurance claims processing and voice communications
- Supplement connectivity options allowing access anywhere in the world to MPLS backbone networks

Satlynx Direct Showcase



Typical Applications

- Voice Services (VoIP)
- Rural Telephony
- IP Infrastructure Extension
- Large Data Transmission
- Digital Signage
- WiFi, WiMax Applications
- GSM Cellular Backhaul
- Business Continuity
- Maritime

Typical End-users

- Financial Services
- Oil & Gas
- Military
- Medical
- Insurance
- Carrier

Technical Features

Simplicity

- One-Box Solution (Satellite Modem, IP Router, TCP Optimisation, QoS, Encryption)
- Centralised Management (Software Upgrades, Configuration Changes)

Reliability

- Implementation of Turbo Product Code (TPC) Forward Error Correction
- Automatic End-to-End Uplink Power Control for higher network availability

Performance

- TCP/IP throughputs of up to 23 Mbps downstream and 5.9 Mbps upstream
- Fast Frequency Hopping (MF-TDMA) combined with Rapid Bandwidth Allocation
- Application Triggered Dynamic CIR-Higher Bandwidth Efficiency
- Built-in TCP and HTTP acceleration

Security

- Real Private Networks
- End-to-End VLANs (802.1q Based)
- AES/3DES Link Encryption
- FIPS 140-2 compliant
- Remote Authentication

Scalability

- Increase Bandwidth as needed
- Upstream from 64 Kbps to 5.9 Mbps (determined by size of antenna and transmitter)
- Downstream from 128 Kbps to 23 Mbps IP Data Rate
- Support for multiple satellites from the same hub

GE - Satcom has two teleports, one at its HQ and operational centre in Backnang, Germany, the other in Leuk, Switzerland. It has a full time commercial presence in the Benelux, France, Poland, Switzerland and the UK.

GE - Satcom experts are available to answer your requests and to take your project from idea to operational reality.

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