

Overview

CyberStream is a family of end- to-end, interactive, two-way systems that deliver asymmetric, high-speed data between the central satellite hub and remote end-users (VSAT terminals).

The CyberStream systems are DVB-S/MPEG-2 compliant, and provide cost-effective and immediately deployable broadband solutions that eliminate the bottlenecks inherent to ground-based networks.

Fast, Innovative and Flexible

With speeds of up to 48Mbit/s in the downstream and up to 384 Kbit/s in the upstream, CyberStream- systems support a wide range of innovative services for bandwidth hungry users: Fast Internet access, Virtual Private Networking (VPNs), videoconferencing, high volume data transfer, Multicasting, Data Broadcasting, Push services and more. Available in Ku-Band with the respective RF-Power and antenna size, the CyberStream- systems work with nearly any type of satellite on the market.

Unbeatable Efficiency, Quality and Cost

A sophisticated Network Management System that features Quality of Service, bandwidth allocation on demand and transmission control exploits the space segment resources efficiently and subscriber costs are consequently reduced.

Moreover, hub stations are scalable according to the number of VSATs in the network. This scalability minimizes initial up front cost and facilitates fast deployment.

Highlights

- Two-way, high-speed data access for users
- Immediate deployment without any necessary terrestrial infrastructure
- A highly competitive alternative to existing terrestrial connections
- Scalable solution using demand- assigned DAMA return path
- Simultaneous one-to-many high-speed data distribution
- Bandwidth On Demand/Quality of Service (QoS): 9.6Kbit/s to 384Kbit/s outbound speed per customer
- High-speed reception of up to 48Mbits/s
- Based on standard DVB-S transmission equipment

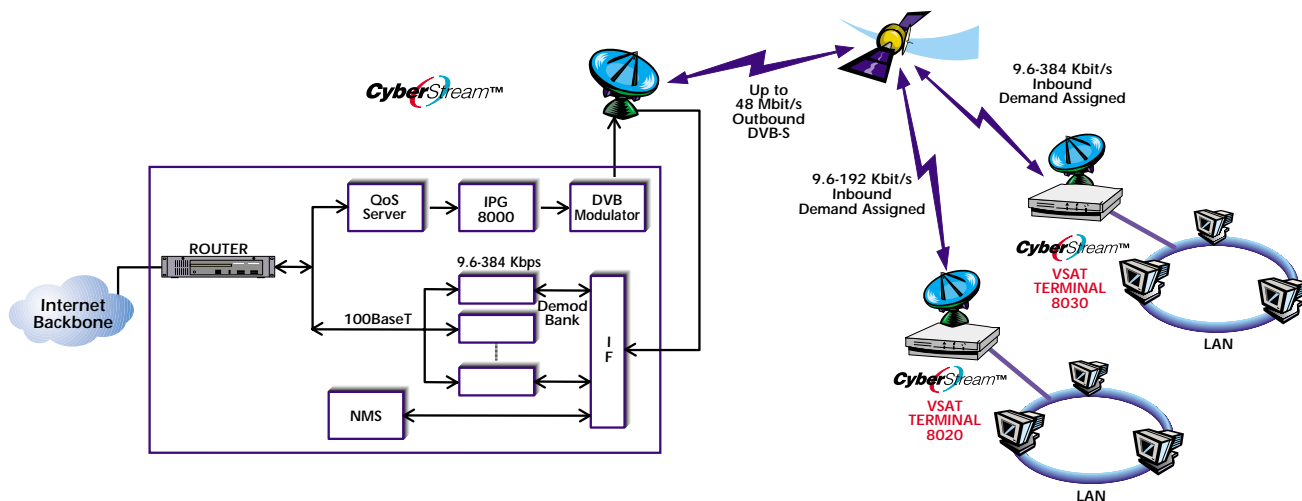
Applications

- Fast Internet access
- IP Multicast
- Push/Data broadcast
- Global ISP services
- VPNs (Virtual Private Networks)
- E- commerce
- Video & audio streaming
- Teleconferencing
- Distance learning
- Business training
- Telemedicine
- Telecommuting
- Any other IP application

The CyberStream- family consists of two types of systems:

CyberStream- for SOHOs and branch offices, high traffic load

The CyberStream- was created for the SOHO or branch office with demanding data, multimedia and Internet requirements. The 8020 maintains a constant two-way, highly reliable connection. It features a DVB-S, 48 Mbps-bandwidth forward channel for downloading and a Time Division Multiple Access (TDMA) return channel of 9.6Kbps to 192 Kbits/s. Multiple users on a shared LAN enjoy remote Internet and data access at a download speed of up to 48 Mbits/s.



Technical Specifications:

Network

Network Type -	802 - Two-Way Interactive, Star topology
Forward Link (Outbound) -	DVB-S/MPEG-2, EN 300 421 standard
Aggregate Data Rate -	Up to 48 Mbit/s
Modulation -	QPSK
Coding -	RS (204, 188) and Convolutional (as per DVB-S)
Return Link (Inbound) -	8020 - 9.6 to 192 Kbit/s, TDMA with reservation
Modulation -	QPSK
Coding -	Convolutional, R= 1/2, K = 7
Power Control -	16 dB in 1 dB steps
IP Data Transmission -	DVB Data Broadcast protocol (MPE, Data Piping), EN 301 192 standard
Data Transport Protocols -	TCP/IP Unicast, UDP Multicast
IP Routing Support -	ARP, ICMP, IGMP/Multicast, Broadcast, Subnetting, Class A, B, C, D addressing
Satellite -	Any commercial Ku or C band communication satellite

User Terminal

ODU

The ODU is an integrated assembly that contains the return link modulator, up converter and transmitter units.

Transmitter - 0.5W to 2.0W in Ku

Antenna - 95 cm to 1.8 m or 2.4 m

Power - 48 VDC, 1.5 A



ODU + Antenna

IDU

The IDU functions as a transceiver/router.

Input Receive Frequency - L-band 950 to 2150 MHz

RF Input Connector - F connector, 75 Ω

Data connection to the ODU - Ethernet, RG 45

Operating System - Linux

Router Configuration - Local (through keyboard),
Remote (from hub, or
from remote PC through
serial port or LAN
connection)

LAN Interface - Ethernet 10/100BaseT
Power - 115/230 VAC, 50/60 Hz



Indoor Unit