



The SkyStream Edge Media Router-5500 series is a versatile and powerful satellite networking platform that receives and manages content at the network edge. Using the EMR-5500, service providers and enterprises can deliver rich content to large communities of users over broadcast and broadband networks. The modular design allows providers to customize the EMR-5500 to their applications now.

Residing at the edge of enterprise networks or in service provider points-of-presence (POPs), the EMR-5500 extracts IP content from incoming DVB MPEG-2 transports streams. It routes content to last-mile broadband networks for delivery over 10/100 Fast Ethernet connections or other WAN interfaces. Supporting a wide range of intelligent distribution capabilities, network topologies and performance options, the EMR-5500 is fully integrated with SkyStream's Source Media Routers, zBand® Content Delivery Platform and E-Manager™ management suite.

GENERAL HIGHLIGHTS

- Superior performance
- Reliable operations
- Advanced data handling
- Broad application support
- Investment protection
- High-volume global deployment
- E-Manager management suite for EMRs

APPLICATIONS

- Managed enterprise services
- Business TV, training, e-Learning and corporate communications
- Remote site video distribution
- Managed data delivery
- Internet over satellite services
- Broadcast content, file and data distribution
- Global Internet connectivity

FEATURES AND BENEFITS

Superior performance

- Performance, reliability and scalability to handle real-time delivery to massive audiences
- Highest small data packet processing throughput
- Full transponder support—tune and demodulate full transponder bandwidth

Reliable operations and robust manageability

- Embedded Linux operating system
- 100% solid state—direct conversion digital tuners
- In-band and out-of-band remote management using E-Manager
- SNMP MIB/MIB II and Enterprise MIB
- Command Line Interface
- Web Interface

Advanced data handling

- Protocol translation—UDP to TCP
- Multicast IP packet forwarding—IGMP (V2), DVMRP, static rules, TTL manipulation
- Multicast to Unicast conversion
- NAT

Broad application support

- Multicast database, CRM and ERP updates
- Online financial updates and real-time supply chain management
- Audio/Video store and forward
- Live multicasts
- Walled gardens and portals
- Video and other dynamic content caching

Investment protection

- Scales from basic receiver to sophisticated data handling capabilities
- Modular software and hardware upgrades
- Software upgrades accomplished via flash memory
- Optional features to grow with new services: TCP Acceleration, Internal modules for ISDN, Analog modem and Synchronous Port (RS-422)

High-volume global deployment

- Bundled SkyStream network management software (NMS)
- Reliable operations—no moving parts to replace (fans, etc.)
- E-Manager—standalone NMS or integrated into HP OpenView™

SPECIFICATIONS

Platform

- 19-inch rack-mount chassis
- Rack height: 1 RU
- Dimensions (H x W x D): 1.75 x 17 x 9.75 in (4.5 x 43.2 x 24.7 cm)
- Two flexible optional slots
- Two 10/100 Ethernet ports
- Two RS-232 serial ports:
 - Console port
 - Port with full modem control
- Embedded Linux operating system

Satellite Receiver

RF Tuner

- L-Band receiver
- Receiving Frequency: 950 MHz – 2150 MHz
- DVB Compliant
- Universal LNB Compatible with US/Asia LNB
- Input Signal Level: -25 dBm to -65 dBm
- RF Input Impedance: 75 ohm

Demodulation and Error Correction

- QPSK and BPSK demodulator
- 1.5-45 MSymbols/sec
- Reed-Solomon outer code: (204, 188), T=8
- Viterbi inner code: K=7, R= 1/2, 2/3, 3/4, 5/6, 7/8

Data Handling Capability

- Protocols: RIP v1, IGMP, DVMRP (RFC 1075)
- PPP (RFC 1661) for external dial up connection including PAP and MS-CHAP security
- DHCP (RFC 2132)
- Tunneling:
 - PPTP (RFC 2637)
 - IPSec (RFC 2402, RFC 2406, RFC 2408)
 - Masquerading/NAT
- Rules and Filtering:
 - Address translation: Unicast to Unicast, Unicast <=> Multicast
 - UDP to TCP protocol conversion
 - 32 MAC address filtering
 - 64 PIDs filtering
 - TTL modification

LNB Power and Switching

- Supply voltage Selectable: Off, 13V or 18V
- Max LNB Current: 300mA
- Antenna Control: 22kHz signal
- DiSeqC: 1.1 Ready
- Over current and short circuit protection

Modes of Operation at Transport Stream

- MPE forwarding to 10/100 Ethernet (IP)
- Up to 64 PID filters per MPEG-2 transport input
- IP decryption: CypherCast*



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