HN9500 Satellite Router

High-performance, scalable broadband satellite router

SPACEWAY™

The HUGHES SPACEWAY™ 3 satellite system provides high-speed broadband services to large enterprises, government agencies, small- to medium-sized businesses, and consumers in North America. A next-generation, Ka-band broadband satellite, SPACEWAY 3 is the world's first commercial satellite system to employ on-board traffic switching and routing capability. Combined with many other advances in satellite technology, such as 10 Gbps overall capacity, fast packet switching, and dynamic beam forming, SPACEWAY 3 ushers in a new world of bandwidth-on-demand satellite communication services with full-mesh connectivity.

The HN9500 is Hughes' high-performance broadband router designed to deliver a wide range of HughesNet® services to large enterprises, small-to-medium businesses, and government agencies in North America utilizing the unique SPACEWAY 3 "switch-in-the-sky" satellite system. SPACEWAY 3 is the world's first commercial satellite system offering true mesh, single-hop connectivity among multiple sites.

The HN9500 enables an extensive and growing range of broadband applications, including:

- High-speed Internet/intranet and VPN access
- Bandwidth-on-demand video and multimedia services, such as videoconferencing and remote site security monitoring
- VoIP voice services
- High-performance access continuity
- ePayments such as POS/credit and loyalty
- Polling, enterprise CRM, and ERP
- Corporate training and eLearning

The HN9500 has selectable data rates to satisfy the most demanding bandwidth requirements—up to 2 Mbps on the uplink and up to 5 Mbps on the downlink. It supports four Classes of Service (CoS) which are available on the SPACEWAY 3 system, including real-time Quality of Service (QoS) features to ensure that applications get the priority and bandwidth they require.

Operating as an IP router on an enterprise LAN, the HN9500 incorporates several advanced features that increase throughput performance and maximize the user's experience and satisfaction. Performance Enhancing Proxy (PEP) accelerates all TCP IP applications and increases overall throughput over satellite channels, while the unique Hughes TurboPage® feature provides HTTP acceleration for lightning-fast browser performance.

Recognizing the need for nonstop networking, the HN9500 supports a range of high availability configurations. A redundant mode employing a secondary satellite or terrestrial broadband backup is available, as is dial backup functionality utilizing an integrated V.90 modem for virtually 100% uptime. Additionally, the HN9500 is also available in a gateway version allowing data center connectivity with a large number of remote sites. This gateway configuration is scalable to multi-megabit transmission rates.

Features

- Supports unicast and multicast IP traffic
- Enables full-mesh connectivity
- Implements dynamic, self-tuning Performance Enhancement Proxy (PEP) software to accelerate the throughput performance by optimizing the TCP transmission over the satellite, delivering superior user experience and link efficiency
- Delivers high-performance Web access via TurboPage technology
- Supports real time Class of Service (CoS) for applications such as:
  - Videoconferencing
  - VoIP voice
  - Live video streaming
- Bidirectional data compression
- Link level encryption for secure connectivity
- Configuration, status monitoring, and commissioning
- User-friendly LED display indicating terminal operational status
- Operates as a local router on a corporate LAN providing:
  - Static and dynamic addressing
  - DHCP server or relay
  - DNS caching
  - Full RIPV2 routing support
  - Multicasts to the LAN by using IGMP
  - NAT/PAT
- Serial protocols supported (with Hughes HN1040 Serial Appliance):
  - SDLC
  - X.25
  - XPAD
  - Verifone 3200/3300 (Visa)

Technical Specifications

Physical Interfaces

10/100BaseT Ethernet LAN RJ-45 ports (2)
V.90 modem with RJ-11 interface

Mechanical and Environmental Specifications

Weight (IDU): 4.8 lbs (2.18 kg)
Dimensions (IDU): 11.5" W x 1.8" H x 11" D
(29.21 cm W x 4.7 cm H x 27.94 cm D)
Operating temperature:
IDU: +5° C to +40° C
ODU: -30° C to +55° C
Input Power: 90–140 Vac; 57–63 Hz

Satellite and Antenna Specifications

Information Rate (Downlink): 440 Mbps
Information Rate (Uplink): 128, 512, 2048 kbps
Frequency Range: Ka-band
Modulation (Downlink): QPSK
Modulation (Uplink): CE-OQPSK
Antenna: 98 cm, 120 cm, 180 cm, 3.5 m
Radio: 1, 2, 4, and 10 watt

For additional information, please visit www.hughes.com.

HughesNet

HughesNet encompasses all broadband solutions and managed services from HUGHES for large enterprises, governments, small businesses, and consumers. HughesNet solutions and services are marketed directly by Hughes and its authorized resellers and distributors throughout North America, Europe, India, and Brazil. In all other regions of the world, Hughes products and services are available from a growing family of value-added providers and resellers. Hughes broadband satellite products are based on global standards approved by TIA, ETSI, and ITU, including IPoS (IP over Satellite), RSM-A (Regenerative Satellite Multimedia), and GMR-1 (Global Mobile Radio).

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