

Bringing serial data support to IP networks



The HN1030 Serial Appliance is a cost-effective solution for enabling serial data connectivity together with high-speed broadband IP access in a Hughes broadband satellite network. Designed as a simple add-on to the HN and HX family of terminals, the HN1030 Serial Appliance supports up to four serial ports with a variety of applications and data protocols. By enabling the simultaneous support of serial data and IP Ethernet over the HN and HX systems, the HN1030 is the perfect solution for integrating legacy serial devices within an IP network including devices such as credit card scanners, SCADA terminals, lottery terminals or gas station pump controllers. With the HN1030 Serial Appliance, the HN and HX systems can supply serial data and broadband IP to anywhere in the world and provide highly efficient, two-way satellite service for enterprises of any size.

To provide good performance over the satellite link, the serial protocols over the four RS-232 interfaces are "spoofed" (terminated locally) by the HN1030 Serial Appliance. Supported protocols include SDLC, X.25, and a variety of asynchronous protocols for credit card devices and environmental controllers. And with Automatic Dial Backup, the HN1030 Serial Appliance has the ability to provide virtual 100% availability.

In conjunction with an HN1030 serial appliance, the HN and HX satellite terminals deliver broadband access to multiple users via IP Ethernet while simultaneously supporting serial data traffic. The HN and HX terminals support many IP applications including content delivery, multicasting, music distribution, distance learning and training, digital media streaming, file transfer, Internet, and VPN/intranet access. The HN and HX terminals receive and transmit data through the system's antenna and outdoor electronics, over the satellite, and via the Hughes Network Operations Center (NOC). TCP connections can be initiated to or from hosts at the remote locations. Users' intranet communications are secure and isolated from other enterprise intranets and from remotes accessing the "public" Internet operating on the same network.

The HN and HX systems comply with the industry's DVB-S2/ACM standard, and therefore, it is very easy to customize a wide range of outroute (terminal receive rate) data rates by choosing different symbol and FEC coding rates. This receive rate is scalable up to 48 Mbps while the return channel (terminal transmit rate) can be 128 or 256 kbps. HN and HX terminals provide an integrated broadband LAN solution to Windows, UNIX, MAC, and other platforms running IP over Ethernet. The HN and HX terminals pass IP data packets to and from any IP device on the LAN and have the functionality of a typical IP router.



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 satellite products are based on the IPoS (IP over Satellite) global standard approved by TIA, ETSI, and ITU.

Features

- Provides easy migration solution for converting serial legacy network to IP
- Supports up to four serial RS-232 connections simultaneously with unicast and multicast IP traffic on HN and HX terminals
- Supports a variety of SDLC and X.25 configurations in "spoofed" mode for satellite efficiency
- Supports a variety of asynchronous protocols for devices such as SCADA, credit card, lottery, and POS terminals
- Supports Automatic Dial Backup for very high availability requirements
- Convenient field upgradeable add-on to already deployed and HX satellite terminals
- Remote terminal management via the Hughes Vision® Network Management System and SNMP agent
- Universal power supply supports international voltage ranges and frequencies
- User friendly LED indicating terminal operational status

Technical Specifications

■ Configuration, Status, and Commissioning

Uses Hughes Vision Network Management System
SNMP management of appliance
Satellite download of configuration and software

■ Serial Protocols

Veriphone 3200 (VISA) - IP
Veriphone 3300 (VISA) - IP
SDLC (PU2/PU2.1) - SDLC (PU4)
SDLC (PU2/PU2.1) - LLC
XPAD - X.25
X.25 - X.25
DSPAD - X.25

■ Physical Interfaces

Two RS-232 synchronous/asynchronous serial ports (DB-25F)
Two RS 232 asynchronous serial ports (DB-9F)

■ Data Rate Specifications

Synchronous 1.2–64 kbps
Asynchronous 1.2–56 kbps

■ Input Power

100–240 V ~ 1A max,
50–60 Hz
15 W typical

■ Mechanical

Shipping Weight: 5.3 lbs (2.4 kg)
Unit Weight: 2.2 lbs (1 kg)
Dimensions: 1.8" W x 9.5" H x 10.5" D
4.6cm W x 24.1cm H x 26.7cm

■ Environmental

Operating Temperature: 41–104° F (5–40° C)
RoHS Compliant

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