



NV-2400S 24-Port Managed VDSL Concentrator

Features

- 24 full-duplex VDSL links up to 15Mbps and distances up to 5,000 feet via RJ-21 connector
- 24 corresponding POTS/ISDN lines via RJ-21 connector
- Built-in POTS/ISDN splitter for each VDSL port
- Single auto-sensing RJ-45 10/100/1000 BaseT and Single 1000 Mbps copper/fiber port (GBIC)
- Comprehensive Bandwidth Management capabilities for each VDSL port
- Signal-to-Noise Ratio indicator for troubleshooting and determining maximum link distances
- Flexible configuration of network resources via web-based interface
- Layer 2 and Layer 3 Switch Features
- Compact 1U rack mount design
- Compliant with ETSI, ITU and ANSI standards

Standards

- 802.1ad Link Aggregation/Port Trunking
- 802.1d Spanning Tree
- 802.1p QOS with Priority Queuing
- 802.1Q VLAN Tagging
- 802.1v Protocol-Based VLAN
- 802.3 Ethernet
- 802.3u Fast Ethernet
- 802.3x Flow Control
- 802.3z Gigabit Ethernet



The NV-2400S 24-Port Managed VDSL Concentrator provides an intelligent solution for delivering network and broadband services to the MTU/MDU and campus with controlled speeds up to 15Mbps and distances up to 5,000 feet (1524m) over existing phone lines. The NV-2400S is a cost-effective solution that allows for fast and easy installation into existing building infrastructure.

The Netsys VDSL solution including the NV-2400S Managed VDSL Concentrator and NV-200 VDSL CPE (Customer Premise Equipment) Modem delivers everything needed to quickly deploy a high-speed Ethernet-based network for providing high-speed Internet access and video-on-demand services, in addition to voice services. The NV-2400S' Gigabit Ethernet Uplink Port connects to a Router or Ethernet Switch and acts as the bridge to the Internet for end-users connected through the NV-2400S' 24 VDSL ports. The second Gigabit Ethernet Uplink Port may be used for cascading additional NV-2400S units or connecting to a video-on-demand server or other IP capable system for distributing content to the end-user. The NV-2400S also features built-in POTS/ISDN splitters so that the VDSL service can share the existing phone line with the end-users' POTS/ISDN telephone service, thus reducing cost and overall wiring requirements. The POTS/ISDN lines and VDSL links connect to standard RJ-21 connectors on the front of the NV-2400S and are broken out on the end-user side by the NV-200 CPE Modem, which features one 10/100 Ethernet Port and one POTS/ISDN Port. For higher density applications, up to four NV-2400S units may be cascaded to provide a 96-port solution. For larger applications, a Gigabit Ethernet Switch (like the Netsys NS-108S or NS-2024S Gigabit Ethernet Switches) can be used to provide additional expansion.

The intelligent web-based management software, allows for streamlined configuration of the NV-2400S, as well as NV-200 CPE devices through a single IP address. The NV-2400S can be configured on a per-link basis to support 5 Mbps up to 5,000-feet (1524m), 10 Mbps up to 4,000 feet (1219m) and 15 Mbps up to 3,200 feet (975m). The NV-2400S bandwidth management feature allows each VDSL link to be rate controlled for speeds from 100 Kbps to 10 Mbps. This unique feature allows the service provider to customize each end-user link and establish differentiated services and pricing levels. Additionally, the signal-to-noise ratio (SNR) feature can be utilized as an indication to the service provider as to the quality of the link between the NV-2400S and the CPE.

The NV-2400S is also a fully managed layer 2 switch that offers quality of service (QOS), link aggregation dynamic trunking groups, multicast, security, GVRP, IGMP for VOD (video on demand), SNMP RMON and web-based switch network management. The NV-2400S provides high and low priority queuing per port based on 802.1p QOS. The NV-2400S provides security through 802.1Q port-based virtual local-area network (VLAN) and supports port based network access control.

The NV-2400S provides comprehensive hardware diagnostics and is easy to maintain. The NV-2400S is one rack-unit high, 14-inches deep (356mm) and can be easily mounted in a rack/cabinet or placed on a desktop. The resulting compact, cost-effective form factor allows service providers and building owners to build high-density VDSL solutions, which require very little space.





Detailed Specifications:

Package Contents

- 1 X NV-2400S Unit
- 1 X User Manual CD
- 1 X AC Power Cord
- 2 X Rack Mount Brackets
- 4 X Mounting Screws
- 4 X Plastic Feet

Remote Unit NV-200

Client Port Features

- 24 VDSL links presented on an RJ-21 connector with built-in surge protection
- - 5 Mbps up to 5000 feet (1524m)
- - 10 Mbps up to 4000 feet (1219m)
- - 15 Mbps up to 3200 feet (975m)
- Bandwidth management per port from 100Kbps to 5/10/15Mbps
- Signal to Noise Ratio (SNR) Line Quality Monitoring
- Utilizes QAM Modulation
- Transmitter operates between 4.5 to 7.9 MHz
- Receiver operates between 0.9 to 3 MHz
- Spectral compatibility with xDSL, ISDN (2B1Q/4B3T), and HomePNA

POTS/ISDN Features

- 24 POTS/ISDN lines presented on an RJ-21 connector with integrated POTS/ISDN splitters
- Band pass filter spectrum: 0 - 680 KHz

Uplink Port Features

- 1 X 10/100/1000Mbps auto-sensing full or half-duplex RJ-45 Ethernet uplink port
- 1 X Gigabit RJ-45/GBIC Fiber auto-link for optional pluggable GBIC 100/1000FX fiber transceiver
- Supports Auto-MDIX
- Support Auto-Link and Hot Swap
- Supports flow control for full-duplex operation
- Supports back pressure for half-duplex operation
- Cascade up to 4 units
- Additional expansion using an Ethernet GigaSwitch

Console Port DB-9F RS-232 connection for out-of-band console access



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Switching Features

- Switching Method: Store-and-Forward
- MAC Address Table: 6K addresses
- Supports MAC Address filtering
- Supports Broadcast Storm Filtering
- Supports Port Based VLAN
- Supports VLAN Tagging:
 - 256 VLAN Groups
 - 1 to 4094 VLAN IDs
 - Ingress Filtering
 - GARP/GVRP
- Supports Protocol Based VLAN
- Supports Quality of Service (QOS)
- Supports Port Mirroring/Sniffing
- Supports Port Trunking/Link Aggregation (LACP)
- Supports Spanning Tree Protocol
- Supports IGMP Snooping (Multicast) for Video On Demand (VOD) Applications
- 512 Multicast IP Groups
- Supports Port Based Network Access Control
- Provides BOOTP and DHCP Clients

Configuration & Management Features

- System Configuration/Remote Network Configuration: CLI, Telnet, Web browser
- Supports In-Band/Out-Of-Band Management
- Supports SNMP
 - RFC 1493 Bridge MIBs
 - RFC 1213 MIB II
 - RFC 1643 Ethernet MIB
 - Enterprise MIB
- Supports RMON Groups 1, 2, 3, 9 (RFC 1757)
- Supports Firmware Upgrade via TFTP/XMODEM
- Fan and Internal Temperature Monitor and Management
- Front panel reset button

Mounting Method 19" Rack Mount (1RU) or Desktop

Dimensions 17.5" x 14.19" x 1.69" (445mm x 360mm x 43mm)

Shipping Weight 12 lbs. (5.44Kg)

Power Requirements Internal AC 100-240 volts; 50-60 Hz.; 2 Amp IEC-320 power plug on back of unit

Operating Temperature (10 to 50°C)
2 cooling fans located on back of unit

Humidity 10% to 90% Non-Condensing

Agency Compliance FCC Part 15 Class A, CE, EN60950

Warranty 1 Year