MEN-5410

Managed Layer 2 Access Gigabit Ethernet Switch

8-port 10/100/1000Base-T + 2-slot Gigabit SFP

Description

The MEN-5410 managed access switch is a compact Gigabit solution designed to provide easy and affordable high-speed network connectivity to home and small offices. Built to fulfil the needs of ever growing bandwidth demands, the MEN-5410 brings the speed of Gigabit Ethernet for bandwidth intensive applications without compromising on performance and reliability. Easy-to-use management and monitoring capabilities significantly reduces IT overhead by eliminating the need to manually configure policies on the switch, saving valuable time and effort, and avoids unnecessary OPEX.

Equipped with 8 multi-rate (10/100/1000Mbps) copper ports and 2 Gigabit SFP slots, the MEN-5410 provides you greater flexibility in choosing Standard Ethernet, Fast Ethernet, or Gigabit Ethernet connectivity. The MEN-5410 is capable of providing Gigabit speeds with a total switching capacity of 20Gbps boosts network efficiency and eliminates network congestion. Service providers can take complete advantage of this small but powerful package to offer a truly high-speed network to low density subscriber base with high ARPU.

Features Highlight

Non-stop Network with Redundant Power

Each time a power failure arises, the subscribers suffer from disrupted network and this in turn translates into loss of revenue, As one of the most innovative solutions for redundant power, the MEN-5410 is built with AC, DC and battery backup options to ensure that the device and the network is always available. This field-proven and most reliable solution enables service providers to provide continuous power supply to network devices and thereby allows them to provide non-stop services to their subscribers in even in power outages.

Multicast Video Service Support

Deploying multicast applications such as IPTV has never been easier than before with comprehensive multicast traffic functions, IGMP snooping and MVR, in the MEN-5410. IGMP snooping regulates multicast traffic in a given VLAN and MVR operates with hosts on different VLANs in a Layer 2 network. These features on isolate the multicast streams and significantly reduce traffic from streaming media and other bandwidth-intensive IP multicast applications for better bandwidth. Thereby, the MEN-5410 supports applications that use multi-traffic in large scale across the network, saves network bandwidth, reduces operational burden and enhances the overall network performance.

Comprehensive QoS Mechanisms to Assign Priority

Network applications need different levels of services delivered to them reliably without any transmission delays and interruptions. The MEN-5410 has comprehensive QoS mechanisms that assign priority to applications and send only specific dedicated traffic to them. In addition, bandwidth management functions of the switch allocate greater bandwidth for mission-critical communications. With increased control, administrators can prevent unpredictable errors and utilize the bandwidth more effectively.

Enhanced Control and Security

Built with enhanced defence mechanisms, the MEN-5410 delivers robust security. Port security limits only hosts using secure MAC addresses to communicate with the switch, while port isolation secures certain ports and prevents unnecessary inter-vlan communication between ports. Other security mechanisms such as DHCP snooping offers a convenient central management solution to uniquely identify, locate and manage the task of assigning IP addresses to every subscriber and ARP inspection provides users with more stable services on a more secure network.

Efficient Network Monitoring and Management Tools

The MEN-5410 features SNMP, an industry standard management protocol, enables administrators to centrally manage and monitor the network, and easily but quickly identify issues that impact network performance. Supported by SNMP traps, the switch allows administrators to monitor unsolicited SNMP trap messages and maintain a healthy network. And in the event of network malfunction, Email alarm feature of the switch sends email alerts to notify administrator regarding real time network problems. These efficient features speed up and simplify network monitoring and troubleshooting, reducing operational head burden.

Features Highlight

Excellent Fault Detection Capabilities

In the event of device AC power source failure, the MEN-5410 enables Dying Gasp feature which sends messages through SNMP traps or syslog to report abrupt loss of power. Prior to power failure of the switch, a temporary back-up power supply reserved on a capacitor allows the switch to send dying gasp message to network operator indicating that power has failed. This helps service provider to easily identify and isolate switch power source failure, saving your time and money, and minimizing network downtime.

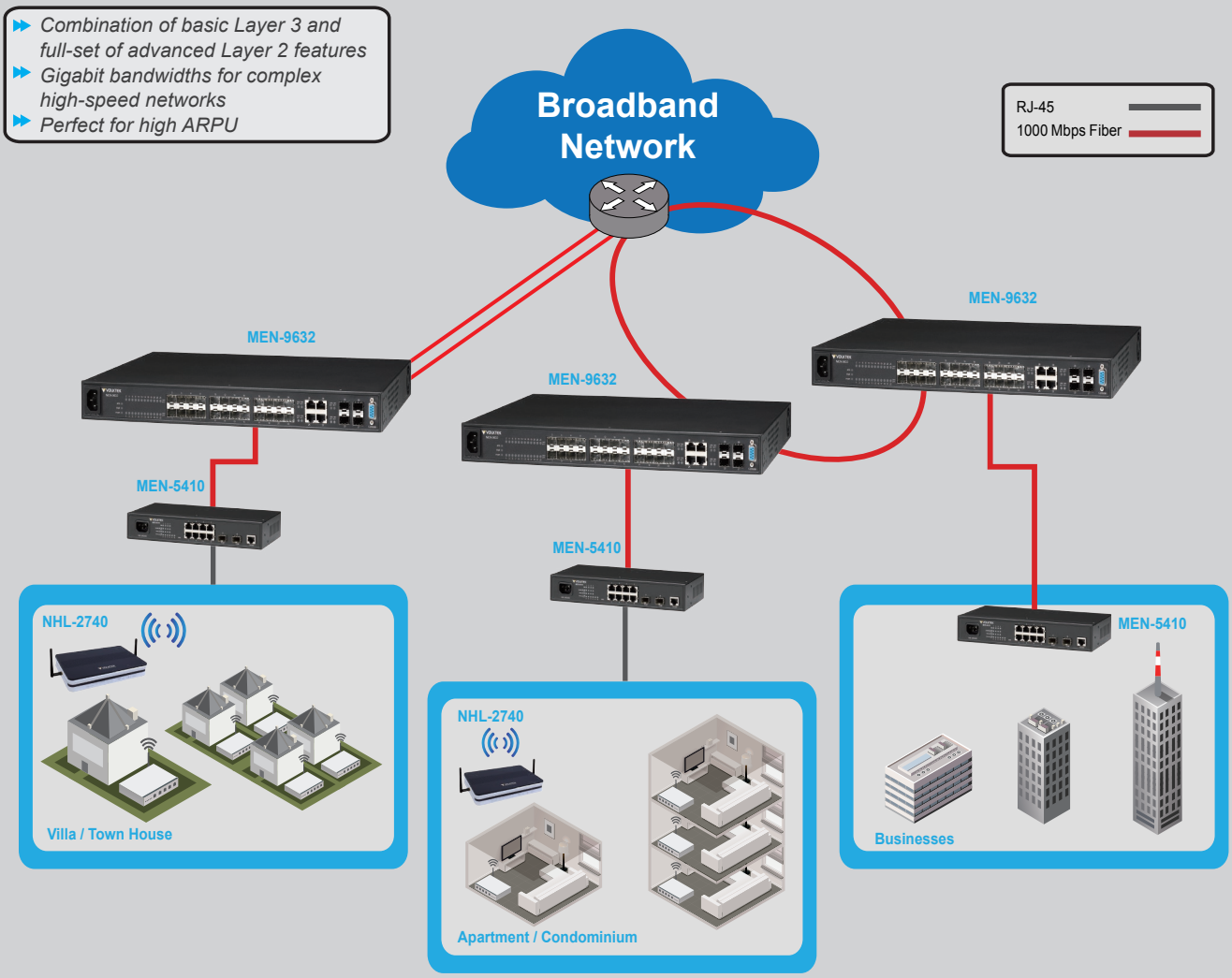
Last-mile Investment Protection

It is critically important for ISPs to protect their last-mile infrastructure from device thefts to avoid delays in delivering network services and loss of your investment. Focusing on this on-field hassle, the MEN-5410 is designed with Device Lock feature, a feature that locks your device to your network. By enabling Device Lock feature, the switch will not function in any network other than its configured network. This innovative feature of the MEN-5410 reduces device thefts and provides a continuous network connectivity saving your infrastructure investments.

Application

Experience superior performance and massive bandwidths that deliver remarkable quality services

- *Combination of basic Layer 3 and full-set of advanced Layer 2 features*
- *Gigabit bandwidths for complex high-speed networks*
- *Perfect for high ARPU*



Aggregation Level
MEN-9632: 24-slot Gigabit Multi-rate SFP,
4-Gigabit Combo ports Managed L3 Aggregation Switch

Access Level
MEN-5410: 8-port 10/100/1000Base-T,
2-slot Gigabit SFP Managed Access Switch

CPE
NHL-2740: 1-port 100/1000 WAN + 4 ports 10/100/1000 LAN
802.11n 2T2R Wireless Router

Specifications

Features	
Enhanced Function	**Network Management**
Hardware Monitor IC	Local Console
Surge Protector 6KV	Telnet and CLI
Dying Gasp	Web-based GUI
Alarm LED	SNMP v1/v2c
Code Redundancy	SNMP Trap
MSTP	RMON (1, 2, 3, 9)
Xpress Ring	Port Mirroring
Dual Homing	Firmware Upgradeable
Protocol-based VLAN	via Auto-Provisioning
MAC-based VLAN	Configuration Backup/Restore
IP subnet-based VLAN	Port configuration, status, statistics
GARP/GVRP	**User Security**
VLAN Trunking	Port Isolation
VLAN Translation	Static MAC forwarding
MAC-based 802.1x	Port Security
IGMP Statistics/Group Filter	ACL (L2/L3/L4)
IGMP Message Filter/Throttling	BPDU Guard/Filter
MVR	DHCP Snooping
DHCP Relay/Option 82	802.1x Support
PPPoE IA	HDoS, ARP Inspection
Syslog of Hardware Monitor	MAC Anti-spoofing
Auto-Provisioning	**Traffic Management and QoS**
Network Function	Tag-based VLAN/Port-based VLAN
LACP Support/Static Link Trunking	Active VLAN Support 4K
STP/RSTP	8 Hardware Queues
Loop Detection/Autorecovery timer	SP/WRR
Multicast VLAN Registration	Storm Control
Traffic Monitor/Autorecovery timer	Rate Limiting
VLAN Stacking (Q in Q)	802.1p/DSCP/ToS Support
Network Storm Protection	Management VLAN
IGMP Snooping	
SFP DDMI support	

Maximum Distances	
Copper	100 m
Console	15 m
SFP	Up to 110 Km

Performance	
Throughput	14,880 pps to 10 Mbps ports
	148,800 pps to 100 Mbps ports
	1,488,000 pps to 1000 Mbps ports
Switch Fabric	12.8Gbps
L2 Forwarding	9.6Mpps
MAC Table Size	16K
Packet buffer size	8Mbit
Jumbo Frame Size	10K

Standards	
IEEE 802.3	10Base-T
IEEE 802.3u	100Base-TX
IEEE 802.3ab	1000Base-T
IEEE 802.3z	1000Base-SX/LX
IEEE 802.3x	Flow Control
IEEE 802.3ad	Link Aggregation
IEEE 802.1d	STP
IEEE 802.1w	RSTP
IEEE 802.1p	CoS Prioritization
IEEE 802.1q	VLAN Tagging
IEEE 802.1x	Port Authentication
IEEE 802.1ab	LLDP
IEEE 802.3	N-way Auto Negotiation

Power	
Input Voltage	100~240V AC, 15V DC optional
	12VDC Battery Back-up
Power Consumption	18W (w/o Battery)

Interface	
Ports	8 x 10/100/1000Mbps (RJ-45)
	2 x GbE SFP slots
	1 x RJ-45 Console

Mechanical and Environment	
Operating Temperature	0°C~50°C
Storage Temperature	-20°C~70°C
Operating Humidity	10 to 80% RH (non-condensing)
Storage Humidity	5 to 90% RH (non-condensing)
Weight	1.2kg
Dimensions	268x44x128mm (WxHxD)

Ordering Information	
MEN-5410	Managed L2+ 8-port 10/100/1000, 2 Gigabit SFP Switch, w/ AC Power Supply, with Built-in Battery Charge
MEN-5410D	Managed L2+ 8-port 10/100/1000, 2 Gigabit SFP Switch, w/ DC Power Supply
GBM-104	1000Base-SX 1.25G, Multi-mode SFP, 500m
GBM-104-2	1000Base-SX 1.25G, Multi-mode, 3.3V, 1310nm, 2Km
GBM-104-10	1000Base-LX 1.25G, Single mode SFP, 10Km
GBM-123	1000Base-LX Bi-di Single Mode SFP Module, 10Km

**Specifications subject to change without notice.*

Dimension