MEN-6532

Managed Layer 2 Aggregation Gigabit Ethernet Switch

24-slot 100FX/Gigabit SFP + 4 Gigabit Combo Ports

Description

The MEN-6532 Managed L2 Aggregation switch is a highly integrated, scalable and future-ready solution for Metro FTTX and Enterprise networks. Deployed next to core, the switch is designed with impressive yet simple-to-use management features, comprehensive QoS mechanisms and robust security functions to deliver more controlled services on a highly secure network. Integrated with enhanced Layer 2 features, the MEN-6532 delivers maximum performance, power and reliability particularly for high density subscriber base with high ARPU.

As a 24-slot 100FX/Gigabit Layer 2 switch with 4-Gigabit combo ports, the MEN-6532 offers gigabit solution with dual-speed connectivity to support high bandwidth requirements of large-scale networks such as campus, metropolitan IP and enterprise networks. Supported by SFP DDMI and Battery backup option, the MEN-6532 reduces the complexity in monitoring SFP parameters and increases device availability, much needed solutions for today's networking environments. The MEN-6532 is a cost-effective and secure switching solution for quick expansion and growth of your network, protecting your network investments.

Features Highlight

Metropolitan and Campus Advantages

The MEN-6532 is an ideal switch for both metropolitan and campus aggregation deployments. It offers an economical, power efficient solution for aggregating with 24-slot 100FX/Gigabit SFP and 4 Gigabit Combo ports, at capable of providing a switching fabric of 56Gbps and high throughputs. The task of upgrading LAN to cater the increasing demands of high bandwidth is now simplified using the MEN-6532. Service providers can connect up to 28 networking devices to the switch and using its multi-rate SFP ports they can serve their subscribers who opt for any high-bandwidth packages.

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-6532. 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-6532 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-6532 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-6532 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 validate access on a more secure network.

Simple and Efficient Monitoring

The MEN-6532's SNMP feature, an industry standard management protocol, enables administrators to centrally manage and monitor the network, and easily but quickly identify issues that impact network performance. With SFP DDMI supported by the switch, administrators can now easily monitor SFP parameters such as temperature, voltage, laser bias current and evaluate SFP's working condition. In addition, administrators can easily monitor device operational status with Hardware monitor function which displays device main health parameters such as voltage, temperature and fans speed.

Features Highlight

Unparalleled Network Performance

Excessive and unnecessary inbound unicast, multicast or broadcast traffic on physical interfaces can degrade your network performance and can even result in complete loss of network service. Storm control and traffic monitor features of the MEN-6532 enables ISPs to effectively monitor and limit incoming traffic to prevent disruption of LAN ports. In addition, loop detection on the switch identifies loops in the network and disables the relevant ports to avoid loop storms, preventing LAN degradation and achieving maximum network performance. These features along with auto-recovery timer deliver robotic methods to control your network automatically.
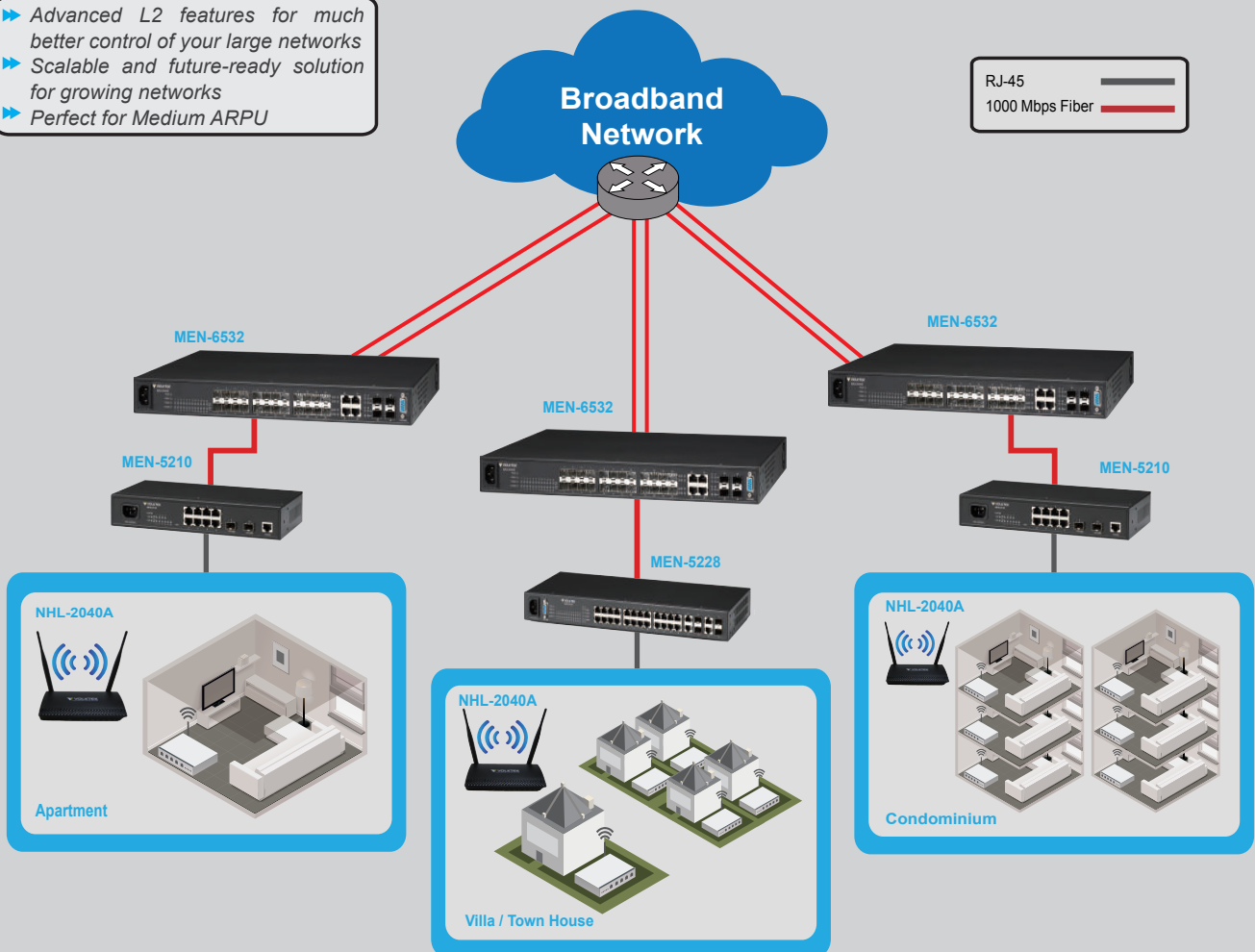
Last-mile Investment Protection

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-6532 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-6532 reduces device thefts and provides a continuous network connectivity saving your infrastructure investments.

Application

Enjoy greater bandwidths and enhanced network performance for your Data and Wireless services

▸ Advanced L2 features for much better control of your large networks
▸ Scalable and future-ready solution for growing networks
▸ Perfect for Medium ARPU

RJ-45
1000 Mbps Fiber

Broadband Network

MEN-6532
MEN-6532
MEN-6532
MEN-5210
MEN-5210
MEN-5228

NHL-2040A
Apartment

NHL-2040A
Villa / Town House

NHL-2040A
Condominium

Aggregation Level
MEN-6532: 24-slot 100FX/Gigabit SFP,
4-Gigabit Combo ports Managed L2 Aggregation Switch

Access Level
MEN-5210: 8-port 10/100Base-TX,
2-slot Gigabit Multi-rate SFP Managed Access Switch

Access Level
MEN-5228: 24-port 10/100Base-TX,
4 Gigabit Combo Managed Access Switch

CPE
NHL-2040A: 1-port 10/100 WAN + 4-port 10/100 LAN.
802.11n 2T2R Wireless Router

Specifications

Features

Network Function

LACP Support	
Static Link Trunking	
Spanning tree Protocol	
Rapid Spanning Tree Protocol	
Multicast VLAN Registration	
Loop Detection with Recovery Timer	
VLAN Stacking (Q in Q)	
Network Storm Protection	
IGMP Snooping	
SFP DDMI support	
Traffic Monitor	

Network Management

Local Console
Telnet and CLI
Web-based GUI
SNMP v1/v2c
RMON (1, 2, 3, 9)
Port Mirroring
Firmware Upgradeable
Configuration Backup/Restore
Port configuration, status, statistics
Switch Lock

User Security

Port Isolation
Static MAC forwarding
Port Security
ACL (L2/L3/L4)
BPDU Guard/Filter
DHCP Snooping
802.1x Support
HDoS, ARP Inspection

Traffic Management and QoS

802.1Q Tag-based VLAN
Port-based VLAN
Active VLAN Support 4K
8 Hardware Queues
SP/WRR
Storm Control
Rate Limiting
802.1p/DSCP/ToS Support
Management VLAN

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	56Gbps
L2 Forwarding	41.7Mpps
MAC Table Size	32K
Packet buffer size	2MByte
Jumbo Frame Size	9K

Standards

IEEE 802.3	10Base-T
IEEE 802.3u	100Base-TX/FX
IEEE 802.3ab	1000Base-T
IEEE 802.3z	1000Base-SX/LX/LHX
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	AC: 100~240V
	DC: 36~60V
Power Consumption	55W

Interface

Ports	24 x 100FX/Gigabit SFP slots
	4 x GbE Combo
	1 x RS-232 Console (DB-9, female)

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	4.5kg
Dimensions	440x44x284mm (WxHxD)

Ordering Information

MEN-6532	Managed Layer 2+ 24-slot 100FX/Gigabit SFP, 4G Combo Switch, w/ AC Power Supply
MEN-6532B	Managed Layer 2+ 24-slot 100FX/Gigabit SFP, 4 Gigabit SFP Combo Switch, w/ AC Power Supply
MEN-6532D	Managed Layer 2+ 24-slot 100FX/Gigabit SFP, 4G Combo Switch, w/ DC Power Supply
FPM-107	100Base-FX Multi-mode SFP, 2Km
FPM-107-30	100Base-FX Single mode SFP, 30Km
GBM-132	100Base-FX Bi-di Single Mode SFP Module, 20Km
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