VOLKTEK

MEN-4532

Managed 24 x GbE SFP & 4 x GbE Combo RJ45/SFP Switch, Metal

Description

To provide better and performable Ethernet service to the customers, service providers need to extend their reach and offer high valued services while reducing both cost and complexity. Offering the helping hand, Volktek is designed MEN-4532 Managed L2+ Aggregation switch designed to meet the most demanding performance requirements of ISPs, MSOs and enterprises class network. 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.

Designed with ultimate combination of 20-slot 100FX/Gigabit, 4-port 100/1000 Combo and 4-slot Gigabit SFP, the MEN-4532 offers gigabit solution with high-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-4532 reduces the complexity in monitoring SFP parameters and increases device availability, much needed solutions for today's networking environments. Delivers maximum performance, power and reliability particularly for high density subscriber base with high ARPU, MEN-4532 is considered as a cost-effective and secure switching solution for quick expansion and growth of your network, protecting your network investments.

Features Highlight

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-4532. 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-4532 supports applications that use multi-traffic in large scale across the network, saves network bandwidth, reduces operational burden and enhances the overall network performance.

Redundant Ring for Faster Network Recovery

Even few seconds of missed communications due to link failure can cause inconvenience and recovering it becomes very critical. Considering these threats, the MEN-4532 is designed with various ring protocols like STP, RSTP, MSTP, Xpress Ring and ERPS where the network failure is recovered in time scale of milliseconds. These features of the MEN-4532 provide a highly reliable network with redundancy connections whenever required and guarantee continuous network uptime.

Comprehensive Traffic Prioritization

Network applications need different levels of services delivered to them reliably without any transmission delays and interruptions. The MEN-4532 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

The MEN-4532 implements complete Layer 2 to Layer 4 ACLs to restrict access to your sensitive network resources by filtering specific packets based on TCP/UDP ports, source and destination IP addresses or particular network devices. Furthermore, DHCP snooping, TACACS+, ARP, IEEE 802.1X and Port Security provide additional tools to manage access and levels of use of network. These defence mechanisms of the MEN-4532 deliver robust network security and enables service providers to offer more stable services on a more secure network.

Efficient Network Monitoring and Proactive Capability

MEN-4532 is configured with both SNMP v1/v2c/v3 and RMON which give enhanced approaches for real-time traffic analysis, remote-monitoring and management of individual switches, this avoids high OPEX and increased efficiency and performance. The switch is assimilated with intelligent e-mail alarm system and SNMP Trap functionality to detect system abnormality along with faster troubleshooting. In addition to this, the device maintains a system log for the subsequent analysis of abnormal and unwanted flaws.

VOLKTEK

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-4532 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-4532 is designed with Device Lock feature, a feature that locks your device to your network and will not function in any network other than its configured network. This innovative feature reduces device thefts and provides a continuous network connectivity saving your infrastructure investments.

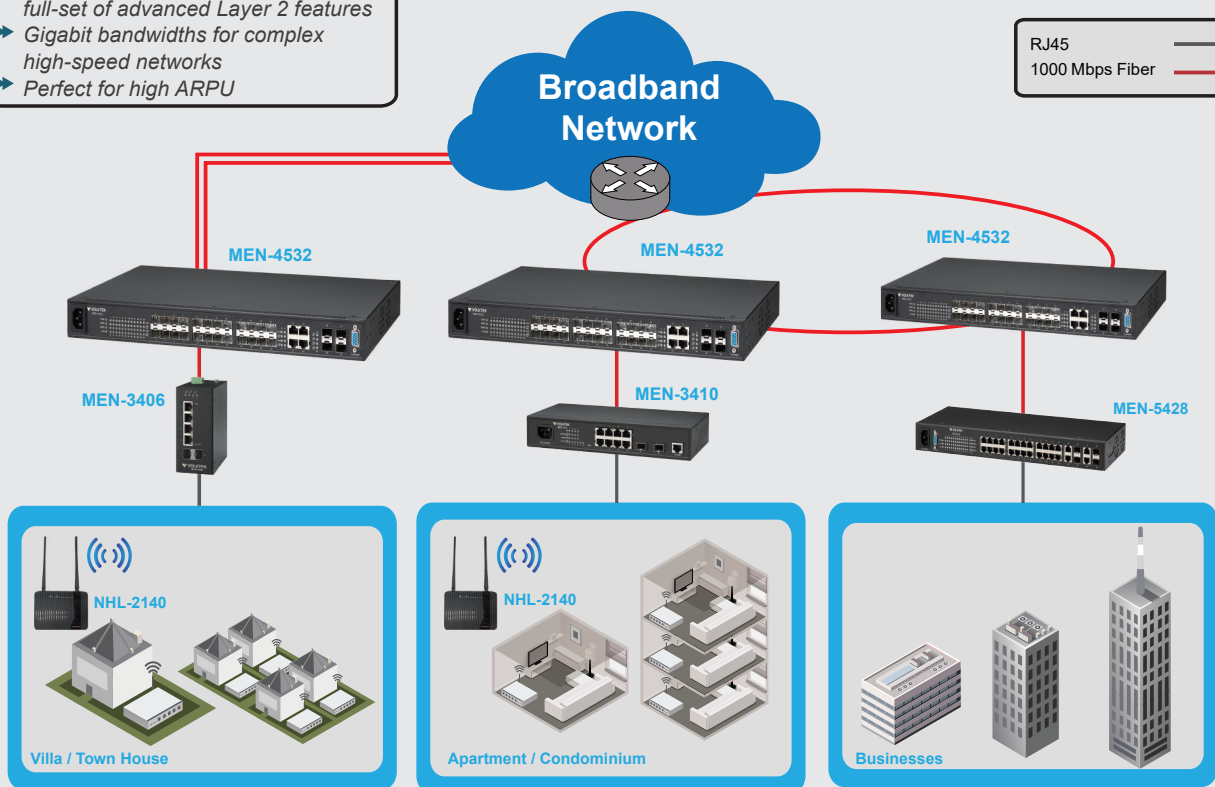### Fine-grained Service Management

Beside basic port-based VLAN function, the MEN-4532 provides higher and flexible levels of VLAN configuration related to MAC and Protocol-based. While MAC-based comprises of defining a virtual network according to the MAC addresses of stations, the Protocol-based VLAN makes it possible to create a virtual network by protocol type. These features along with VLAN stacking enable ISPs to flexibly deliver services with extra security and separation. As a result, ISPs using the MEN-4532 can experience fine-grained service management fulfilling the requirements of their subscribers.

Applications

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*

| RJ45 | ———— |
| 1000 Mbps Fiber | ———— |

Broadband Network

MEN-4532

MEN-4532

MEN-4532

MEN-3406

MEN-3410

MEN-5428

NHL-2140

NHL-2140

Villa / Town House

Apartment / Condominium

Businesses

Aggregation Level
MEN-4532: Managed 20 x FX/GbE SFP & 4 x GbE Combo & 4 x GbE SFP Switch

Access Level
MEN-5428: 24 x10/100/1000 RJ45 & 4 x GbE Combo RJ45/SFP Switch

Access Level
MEN-3410: 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch

CPE
NHL-2140: 1 x 100/1000 WAN + 4 x 10/100/1000 LAN 802.11ac 2T2R Dual-Band Wireless Router

VOLKTEK

Specifications

Standards

IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX/FX
IEEE 802.3ab	1000BASE-T
IEEE 802.3z	1000BASE-SX/LX
IEEE 802.3x	Flow Control
IEEE 802.3ad	Link Aggregation
IEEE 802.1ab	LLDP
IEEE 802.1D	STP
IEEE 802.1w	RSTP
IEEE 802.1s	MSTP
IEEE 802.1p	Class of Service
IEEE 802.1Q	VLAN Tagging
IEEE 802.1X	Port Authentication
IEEE 802.3az	Energy Efficient Ethernet (EEE)

Interface

Ports	20 x 100FX/Gigabit Slots
	4 x 100FX/Gigabit Combos
	4 x Gigabit SFP Slots
	1 x RS232 Console Port
LED Panel	PWR1, PWR2, ALARM, POST, 1000, LNK/ACT

Features

Performance	Jumbo frame Size: 10KBytes
	MAC Table Entries: 20Gbps
	Active VLAN: 4K
	Switch Fabric: 56Gbps
	L2 Forwarding Rate: 41.7Mpps
Management	CLI, Telnet/SSH, HTTP/HTTPs, SNMP v1/v2c/v3, SNMP Trap, MVLAN, Firmware Upgradable, Configuration Backup/Restore, Syslog, SNTP, PTP, LLDP, UDLD, DHCP Client, DHCP Option 66/67/82, DHCP Relay, PPPoE IA, e-mail Alarm, Server Control, Mirroring, DDM, Dying Gasp (depends)
Reliability	STP/RSTP/MSTP, Xpress Ring, ERPS v1/v2, Dual Homing, LACP, Code Redundancy
VLAN	IEEE 802.1Q, GARP/GVRP, Port-based VLAN, MAC-based VLAN, IP-based VLAN, VLAN Translation, Protocol-based VLAN, QinQ
Traffic Control	IGMP snooping/Throttling/Proxy, MLD, MVR, QoS, Flow Control, Abnormal Traffic Detection, Rate Limit, Storm Control, Traffic Monitor, Port Isolation, Loop Detection, Static Route

Note:
* The SFP communication distance upon the request.
* Industrial SFP with wide operating temperature from -40°C~85°C is available upon request.
* Specifications subject to change without notice.

Features

Security	ACL, SSH, Port-based 802.1x, TACACS+, Port Security, MAC Search, Refusal MAC, Sticky MAC, Static MAC, DHCP Snooping, DHCP Sever Screening, ARP Inspection, BPDU Guard/Filter, Root Guard, Management Host

Power

Input Voltage	AC: 100~240V, 50~60Hz
	DC: 48V (MEN-4532D only)
Power Consumption	25W (System)

Mechanical and Environment

Housing	Metal Case
Mounting	Rack Mount
Operating Temperature	0°C~50°C
Storage Temperature	-20°C~70°C
Operating Humidity	10 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	3.66kg
Dimension (WxHxD)	440x44x285mm

Certifications

Electromagnetic Compatibility	CE Mark
	FCC Class A
	EN 55032 (CISRP 32) Class A
	EN 61000-3-2/3

Ordering Information

MEN-4532	Managed 24 x GbE SFP & 4 x GbE Combo RJ45/SFP Switch
MEN-4532B	Managed 24 x GbE SFP & 4 x GbE Combo RJ45/SFP Switch, Battery Charge Function Included
MEN-4532D	Managed 24 x GbE SFP & 4 x GbE Combo RJ45/SFP Switch, w/ Internal DC Power

Optional Accessories

GBM-123TS	1000BASE-LX, Bi-Di SFP TX:1310/RX:1550, Single Mode, 10Km
GBM-123RS	1000BASE-LX, Bi-Di SFP TX:1550/RX:1310, Single Mode, 10Km
GBM-132TS	100BASE-FX, Bi-Di SFP TX:1310/RX:1550, Single mode, 20Km
GBM-132RS	100BASE-FX, Bi-Di SFP TX:1550/RX:1310, Single mode, 20Km

Dimension