Windbit ESWM1L3 Switch Series

Modular ESWM1L3 Switch Series

Introduction

The ESWM1L3 multi-service core switches are designed for next-generation converged networks in campus networks and data centers.
Using the modular options the corporate IT managers can define the best product for its network services satisfying application requirements, security, and getting an improved network for the future.

The architecure is multi-plane with separated planes for the control from the forwarding plane, ensuring continuous bandwidth with non-blocking switching in all interfaces.

Highlight

- **Core devices on a small- or medium-sized network**
- **Aggregation devices on a large-sized network**
- **Redundant supervisor modules**
- **Wide power module options**
- **Many different line cards**
- **Preinstalled fan modules**

Interfaces

4x chassis models	ESWM1L3-320, ESWM1L3-620, ESWM1L3-822, ESWM1L3-824
Supervisor module slots	2x in all models
Line card slots	From 3 to 8
Power module slots	From 2 to 4
Fan module slots	From 1 to 2

Competitive Advantages

High-Density options for future-proofing	This future-proofs the network for bandwidth-intensive applications, big data analytics, and high-performance computing, avoiding costly HW upgrades later.
Advanced programmable chipsets	This provides greater flexibility for customizing data plane processing and implementing new protocols, a feature found in more expensive data center switches.
Robust reliability for the core	Features like redundant, hot-swappable power supplies and fans ensure maximum uptime, which is non-negotiable for core network infrastructure.
Superior Value (TCO)	A compelling combination of advanced features, competitive upfront pricing, and often more inclusive licensing compared to top-tier brands.

Key Features

- **On-demand resource allocation based on virtualization** This series switches virtualize multiple physical devices into one logical device. They can implement fast switchover within 50 ms to 200 ms upon link failures, ensuring nonstop transmission of key services
- **CIOS architecture for non-blocking switching** Multi-level multi-plane architecture, which sepatared control plane from the forwarding plane. It can be independently configured to ensure non-blocking switching at line rate among all ports
- **Ease of Network Maintenance** These modular switches support the hardware monitoring system in 1+1 redundancy mode to centrally monitor status parameters such as the card, fan module, power module, power supply, and environment parameters.
- **Carrier-Class High Reliability** Online patch upgrades, GR for OSPF/IS-IS/BGP and BFD for VRRP/OSPF/BGP4/ISIS/IS-ISv6/static routing, 1+1 HW monitoring, automatic traffic allocation if a fabric module fails
- **SDN Support with OpenFlow and NETCONF** It substantially reduces network maintenance costs while greatly simplifying network management because it allows the live network to be smoothly upgraded to a software-defined networking (SDN) network
- **High Energy Efficiency** Low voltage power supply design for the internal system, the multi-core CPU supports dynamic power management to save power at low loads, and intelligent fan modules support 256-level speed for precise T control.

HARDWARE TECHNICAL FEATURE

Modular chassis catalog

ESWM1L3-320 modular chassis with 3x line cards and 2x supervisor modules
ESWM1L3-620 modular chassis with 6x line cards and 2x supervisor modules
ESWM1L3-822 modular chassis with 8x line cards, 2x supervisor modules and 2x fabric modules

1st Generation Supervisor Modules

ESWM1L3-822-SM1: ESWM1L3-822 1st-generation supervisor module
ESWM1L3-320-SM1: ESWM1L3-320 supervisor module
ESWM1L3-620-SM1: ESWM1L3-620 supervisor module

Line Cards (1) Working with all supervisor modules

ESWM1L3-LC-DA-001: 32 x 1GE/10GE SFP+ ports (LC) and 4 x 40GE QSFP+ ports (MPO)
ESWM1L3-LC-EB-002: 24x1GBASE-T ports, 24x100M/1GE SFP and 4 x1GE/10GE SFP+
ESWM1L3-LC-EB-003: 24x100M/1GE SFP ports, 12x1GBASE-T combo and 4 x 1GE/10GESFP+

2nd Generation Supervisor Modules

ESWM1L3-320-SM2: ESWM1L3-320 2nd-generation supervisor module
ESWM1L3-620-SM2: ESWM1L3-620 2nd-generation supervisor module
ESWM1L3-822-SM2: ESWM1L3-822 2nd-generation supervisor module

Switch Fabric Modules

ESWM1L3-822-SFM1: ESWM1L3-822 switch fabric module
ESWM1L3-822-SFM2: ESWM1L3-822 2nd-generation switch fabric module
ESWM1L3-824-SFM1: ESWM1L3-824 1st-generation switch fabric module

Line Cards (2) Working with all supervisor modules

ESWM1L3-LC-EB-005: 48x100M/1GE SFP ports and 4x1GE/10GE SFP+
ESWM1L3-LC-FA-006: 48x1GBASE-T ports. ESWM1L3-LC-FA-007: 48x1GE SFP
ESWM1L3-LC-FB-008: 48x1GE/10GE SFP+

SOFTWARE TECHNICAL FEATURE

L2 Switching-1

IEEE 802.1Q(4K VLANs),Voice VLAN, Super VLAN and private VLAN. 802.3az
MAC address-based, port-based, protocol-based, and IP subnet-based VLAN. GVRP
Basic QinQ and selective QinQ. STP, RSTP and MSTP- Layer 2 and Layer 3 VXLAN

IP routing

Static routing, RIP and RIPng, OSPFv2 and OSPFv3, GR
IPv4/IPv6 IS-IS, BGP4 and BGP4+ EVPN
IPv4/IPv6 VRF, Policy-based routing (PBR), IPv4 and IPv6 ECMP

L3-Routing

IPv4 and IPv6 static routing,
RIP and RIPng OSPFv2 and OSPFv3 IS-ISv4 and IS-ISv6
BGP4 and BGP4+ Routing policy IPv4/VRF IPv4/IPv6 PBR

ACL and QoS

Standard/Extended IP ACLs (hardware ACLs based on IP addresses or TCP/UDP port numbers)
Expert-level ACLs (hardware ACLs based), ACL80 and IPv6 ACL
ACL redirection, Port traffic identification, Port-based rate limiting, 802.1p

Reliability

REUP, RLDP, DLDP, IPv4 VRRP v2/v3 and IPv6 VRRP, VRRP for the super-VLAN
GR for OSPF/IS-IS/BGP
BFD for VRRP/OSPF/BGP4/ISIS/ISISv6/static routing

IP services

Static and dynamic ARP, DHCP client, DHCP relay, DHCP server, DHCP snooping, DNS
DHCPv6 client, DHCPv6 relay, and DHCPv6 snooping. Neighbor Discovery (ND) and ND snooping
ERPS (G.8032 v1/v2), sing/tangent/intersecting ring, and load balancing

Multicast

IGMP v1/v2/v3, IGMP snooping v1/v2/v3, IGMP proxy, IGMP fast leave
PIM-DM, PIM-SM, and PIM-SSM PIM-SSM for IPv4 and IPv6. MSDP to achieve inter-domain multicast
MLDv1 and MLDv2, Multicast static routing, MLD v1/v2 snooping

MPLS

MPLS IPv6, MPLS L3VPN
MPLS 6VPE
MPLS MIB (RFC 1273, RFC 4265, and RFC 4382)

Security

AAA, RADIUS, TACACS+, Portal authentication, IEEE802.1X, MAC address bypass (MAB) auth.
Web authentication, HTTPS, SSHv1 and SSHv2. Global IP-MAC binding. ICMP. Port security
IP source guard. DAI. SAVI. ARP spoofing prevention. CPP and NFPP

Management

SPAN, RSPAN, ERSPAN, sFlow, NTP, SNTP, FTP, TFTP, SNMP v1/v2c/v3, RMON (1, 2, 3, 9)
NETCONF,CWMP, gRPC.Virtual Switching Units(VSU)
OpenFlow Special 1.3, Cloud Management. Console/Telnet/SSH2.0 CLI configuration

ADDITIONAL TECHNICAL FEATURE

Supervisor 320/620/824-SM1 packet forwarding - switching

4500/9000/14300 Mpps --- 6000 /12000/19200 Gbps
Supervisor 320/620/822-SM1/822-SM2 packet forwarding --- switching capacity
4500/9000/12000 Mpps---6000/12000/16000 Gbps

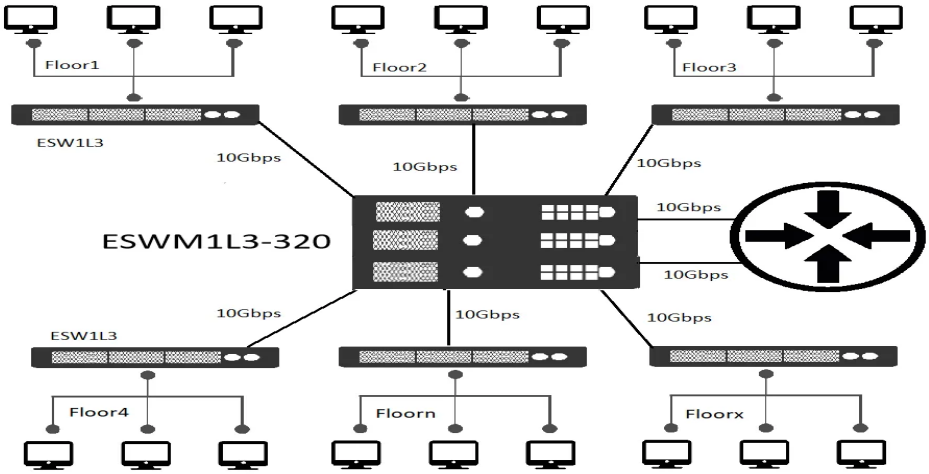
Memory & storage in supervisor modules and line cards

BootROM: 16MB
Flash memory: 8GB.
Memory: 4GB

CPU

Supervisor modules: quad-core processor, each core 2.2 GHz
Line cards: quad-core processor, each core 2.2 GHz
Real-time clock (RTC)

Scenarios



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Website: www.teldat.com

SPAIN
Calle Isaac Newton, 10
Tres Cantos - 28760
Madrid (Spain)
Phone:+34 91 807 6565
info@teldat.com