SWM-3800

10 GIGABIT ETHERNET SWITCH
LAYER 3 - ACCESS & AGGREGATION

6X 10GE
24~48X GE
_____

LAYER 3
OSPF, BGP, VRRP
IP v4 & v6
_____

VIRTUAL SWITCH
STACKING 16
_____

MPLS VPN
LDP
_____

RESILIENCY
EAPS, VRRP
_____

FIREWALL
L2-L4
cybersecurity

Description

SWM-3800 series are new generation layer 3 switches that provide high density of Gigabit interfaces and 10 Gigabit uplink ports in a compact 1U/19'' format. Various models deliver up to 6x 10GE SFP+ and 24 or 48 GE ports with a choice of RJ45, POE+ and SFP options.

SWM-3800 have an Ethernet and IP feature rich software with a dual stack for IP v4 and v6 routing, MPLS VPN, layer 2/3/4 firewall filters with best performance thanks to specialized ASIC's for wirespeed traffic control and switching.

SWM-3800 are stackable switches to make a secure and larger capacity virtual switch. Up to 16 switches can be cascaded to build a virtual routing switch of 800 Ethernet ports.

SWM-3800 supports extensive resiliency, cybersecurity and management functionalities that enable 99.999% service availability that is required by mission critical networks : RSTP/MSTP, VRRP, LACP, 802.3ah, 802.1X, Radius, etc. Resilient architectures rely on EAPS and ERPS with very fast recovery and no service interruption.

SWM-3800 embeds a dual IP v4 and v6 software stack with complete set of protocols including OSPF v3, BGPS4+, but also ISATAP and 6to4 tunnels. It supports LDP label distribution to access an MPLS network with layer 2 VPN and multi-VRF services.

SWM-3800 responds to the more and more demanding cybersecurity requirements. Its hardware architecture has specific functions to prevent from DOS attack at the ingress interface such as Syn-flood and broadcast storm. Connections are authenticated through 802.1X and management sessions through Radius. The firewall function performs wirespeed filtering at layer 2/3/4.

SWM-3800 has been designed with several environmental objectives including the efficient use of energy according to the IEEE 802.3az standard. The equipment supports several software features to monitor and control the power consumption.
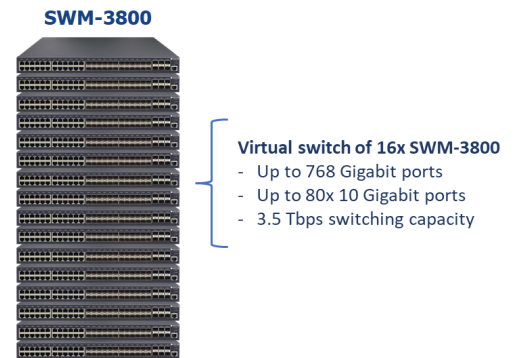
Applications

SWM-3800 switches are perfect solutions in many Ethernet network at the access, distribution, aggregation and even core levels with layer security and routing functions:

- Enterprise : Gigabit access with POE options, 10GE routing and server connection
- Defense : secured Ethernet network
- Communication Service Providers : enterprise network access with MPLS VPN
- IP v4 to v6 migration : dual stack IP v4/v6 and 6to4 tunnelling
- Enterprise or FTTH optical distribution network
- POE+ access for VoIP or IP camera with multicast traffic control

Stacking

High density Virtual Switch

SWM-3800 switches support virtualization and stacking to provide switching and management of a larger virtual system. Up to 16 switches can be stacked to deliver 80x 10GE ports and 768 GE ports with a choice of RJ45, SFP and POE options.

SWM-3800

Virtual switch of 16x SWM-3800
- Up to 768 Gigabit ports
- Up to 80x 10 Gigabit ports
- 3.5 Tbps switching capacity

Backbone to Access

Enterprise switch

SWM-3800 are very flexible Ethernet switches in enterprises and other infrastructures demanding on security and traffic engineering. They provide backbone, aggregation and distribution features to reduce CAPEX and maintenance efforts. The multiple 10 Gigabit interfaces connect to application servers and other distribution switches with an optimized bandwidth performance. SWM-3800 support IP v4/v6 routing and aggregation traffic filtering at wirespeed to enable best network security and user quality experience.
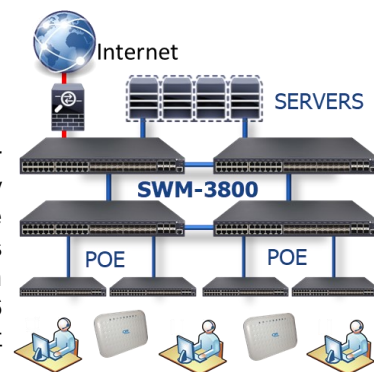
Mission Critical Networks

SWM-3800 perform traffic aggregation and control in mission critical networks of many industrial infrastructures such as electricity or water distribution, video-protection, intelligent traffic and Smart-City systems, Defense and emergency services, etc.

SWM-3800 brings several benefits such as a mix of RJ45 / POE / SFP interfaces, extensive layer 2 and 3 protocols, G.8032 and VRRP resiliency, power supply redundancy that improve service availability.

SWM-3800 respond the more demanding cybersecurity requirements of the mission critical networks thanks to ACL filtering, 802.1X authentication, DOS attack prevention. The equipment management is secured by Radius encryption and authentication protocols.

Specifications

Ethernet Ports	
10GE Uplink	• 6x SFP+ 10 GE / GE
User ports	• 24 to 48x Gigabit ports, 10/100/1000BT or SFP 100FX/1000FX • 802.3az energy saving

Ethernet Switch	
Backplane	• 216 Gbps
Switching	• 162 Mpps
MAC address memory	• 32 K
Max frame size	• 9,160

Ethernet Services	
VLAN	4K VLAN, GVRP, Provider Bridge / Q-in-Q, PVLAN, 1:1 mapping, N:1 mapping, Voice-VLAN
Multicast	IGMP v1/2/3, IGMP Snooping, IGMP Group, IGMP Fast Leave, PIM-SM, PIM-DM, MVR, IGMP Filter
QoS	Rate limiting, L2-L4 CoS, 802.1P DSCP, Strict-Priority / WRR / SP+WRR, WRED, QoS on MAC/IP/TCP/UDP/VLAN/COS/DSCP/TOS, priority relabelling
Redundancy	STP, RSTP, MSTP, BPDU protection, EAPS, ERPS

Layer 3 Routing	
IP v4	Static routing, RIP v1/2, OSPF, BGP, PBR, ECMP, VRRP 12K routing table
IP v6	Static routing, RIP, OSPF v3, BGP4+ 6K routing table 6 to 4 tunnel, ISATAP tunnel MLD v1/v2, MLD Snooping

Resiliency and Security	
Layer 2	802.1X, port isolation, DDoS attack prevention, TCP Sync flood prevention, uRPF, LACP, EAPS
Layer 3	VRRP, DHCP snooping and option 82
Firewall	ACL L2/L3/L4, filtering and authentication
Management	Radius, Tacacs+, 802.1X

Management	
Local Console	CLI
Ethernet IP	Telnet, SSH, http, https, Snmp v1/v2/v3, tftp, sftp, RMON, sFLOW
OAM	802.3ah, Y.1731
Other	NTP, LLDP, Dying-Gasp

General Characteristics	
Power supply	• 2x slots for modular and redundant power modules • AC module : 110-230 Vac, 50/60 Hz, 150 W • DC module : 48 Vdc, 150 W
Dimensions	• 440 x 350 x 44 mm
Environment	• operating temperature: 0 to 50 °C • stockaging temperature : -20 to +70 °C

Range of products

SWM-3830-R-MA

SWM-3838-S-MA

SWM-3854-RS-MA

SWM3600-AC150   SWM3600-DC150

Ordering information

Reference	10GE	GE RJ45	GE SFP	GE.POE+	Description
SWM-3830-R-MA	6	24	-	-	10 gigabit Layer 3 switch, 1U/19'', 2x slots for power supply modules, 1x 110-230 Vac module and 19'' mounting kit included
SWM-3838-S-MA	6	8	24	-	
SWM-3854-R-MA	6	48	-	-	
SWM-3854-RS-MA	6	24	24	-	
SWM-3854-P-1A500	6	-	-	48	

Options	Description
SWM3800-AC150	110-230 Vac power supply module, 150 W
SWM3800-DC150	48 Vdc power supply module, 150 W
SWM3800-AC500	110-230 Vac power supply module, 500 W (for PoE SWM-3854-P switch)

CXR Networks
T +33 (0) 237 62 87 90
www.cxr.com

Rue de l'Ornette 28410 Abondant France
contact@cxr.com

Smart Solutions for Smart Networks