ZyXEL

ZyXEL's 10GbE L2+ Managed Switch Offers Line-rate Performance for Virtualization and Convergence

- **Flexible 10GbE connectivity with 12 SFP+ ports, 8 10G BASE-T ports and 4 SFP+ combo ports**

- **Layer-2 plus (L2+) feature set equipped with static , policy route and VRRP**

- **No single-point of failure hardware and software design**

- **Future-proofed with IPv6 support**

- **Comprehensive security features to ensure network availability**

- **Limited life-time warranty***

* Warranty terms, service availability, and service response times may vary from country or region to country or region.

ZyXEL designed its next-generation 10GbE L2+ Managed Switch—the XS3700-24—for unmatched resilience and non-blocking performance in server virtualization, as well as managing Gigabit traffic from the network edge. The XS3700-24 is not only capable of providing a complete array of L2+ features; it also handles basic layer-3 routing. This includes both static route and policy routes to ensure flexible deployments and uninterrupted network availability. The XS3700-24's redundancy support for both its hardware and software makes it the ideal enterprise-grade 10GbE backbone.

Benefits

Flexible port configuration for transitioning networks

The XS3700-24 features a host of connectivity options for flexible port configuration, including eight 10GbE copper connection ports, 12-port SFP+ for 10GbE uplink and four 10GbE SFP+ combos for fiber links. This allows businesses to leverage copper connectivity in their existing 10GbE servers. It is now possible to increase network flexibility to incrementally meet growing bandwidth demands by aggregating current 10GbE switches with fiber links through this 24-port 10GbE switch.

Enterprise-grade network backbone for SMBs

Faster speeds, increased bandwidth and enhanced reliability are a must for any business network undergoing data center consolidation and virtualization. The XS3700-24's built-in 10GbE aggregation capabilities allow the device to deliver 480 Gbps switching capacity and 357.14 Mpps forwarding rates with an added 4MB packet buffer. Static route and policy route ensure zero overhead on traffic for the best possible quality of service (QoS). Finally, the XS3700-24 makes virtualization and convergence easy with its high-density line-in performance.

ZyXEL One Network experience

Aiming for relieving our customers from repetitive operations of deploying and managing a network, ZyXEL One Network is designed to simplify the configuration, management, and troubleshooting, allowing our customers to focus on the business priorities. ZyXEL One Network presents an easy-to-use tool, ZyXEL One Network Utility (ZON Utility), to realize speed network setup. ZyXEL Smart Connect allows ZyXEL networking equipment to be aware and recognize each other and further facilitating the network maintenance via one-click remote functions such as factory reset or power cycling. ZyXEL One Network redefines the network integration across multiple networking products from switch to Wi-Fi AP and to Gateway.

ZyXELonenetwork
Redefining network integration

XS3700-24
24-port 10GbE L2+ Switch

Resiliency and availability for non-stop business continuity

The XS3700-24 features no single point of failure (NSPOF) in both its hardware and software design, providing the reliability necessary for uninterrupted service in a business environment. This is made possible by the device's high-redundancy hardware architecture, which includes dual internal power supplies, dual image on dual flash and high-availability software design via Virtual Router Redundancy Protocol (VRRP). This last feature—VRRP—allows several first-hop virtual routers to dynamically share an IP address by assigning one the role of master while the remainder are designated as backups.

Comprehensive security and access protection

Security is on the mind of every user and network administrator these days. That is why ZyXEL equips the XS3700-24 with the most comprehensive array of security features to enhance isolation and control while avoiding service interruptions, making it the ideal SMB solution for virtualization and convergence. Once such feature is loop guard, which helps avoid breaks in service caused by switching loops. Other advanced defense mechanisms include TACAS+ and RADIUS authentication, both of which can increase system security by blocking unauthorized logons. Finally, features like IP source guard, DHCP snooping and ARP inspection can detect and block international network attacks.

Feature Highlights

10GbE Connectivity

10GbE Connectivity

Distinct from Gigabit Ethernet switches, 10 Gigabit Ethernet switches offer higher levels of scalability and efficiency for network infrastructure. The XS3700-24 comes with a combination of 10GbE RJ-45, 10GbE SFP+ and 10GbE combo (RJ-45/SFP) connectivity, allowing simple and flexible upgrading and deployment of 10GbE networks.

IPv6

IPv6

Supported with comprehensive IPv6 management features, the XS3700-24 helps businesses stay ahead and prepare for future IPv6 networks. Full IPv6 support features include auto configuration, duplicate address prevention, dual-stack and neighbor discovery to ensure a business's investment is protected.

ZyXEL One Network Utility

ZON Utility

The XS3700-24 comes with ZON Utility to facilitate streamlined network management. Administrators can check locations, assign IP, reboot and upgrade firmware for multiple switches from just one platform. There's no need for administrators to use direct access or expensive, overly specific network management tools.

CLI Management

CLI Management

Administrators are able to manage the network via both Web-based GUI and command line interface (CLI) for more advanced control. The CLI of XS3700-24 brings highly efficient for rolling out new configurations on multiple switches. Additionally, ZyXEL CLI is consistent throughout all models of the Switch 2210, 3700 and 3900 series.

Neighbor Device Discovery

Neighbor Device Discovery

Part of the ZyXEL One Network experience, the XS3700-24 is able to discover all connected ZyXEL networking devices, as well as other hardware supporting LLDP devices. This allows administrators to see what devices are connected to the network, what ports are in use, device IP and even firmware version.

Internal Redundant Power Supply

Internal Redundant PSU

With dual internal power supplies, the XS3700-24 ensures 100% uptime in the event of a power supply failure, while at the same time saving rack space usually taken up by external power supplies. In addition, power supply modules support hot swapping to avoid interruption during trouble shooting.
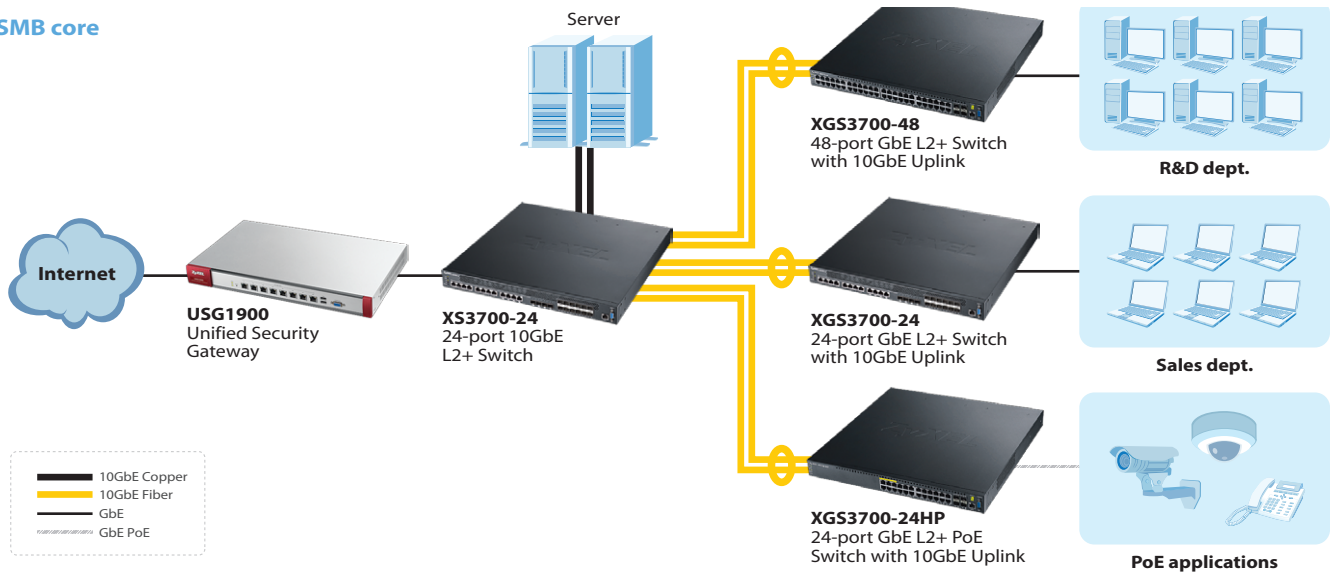
Web GUI Redirection

Web GUI Redirection

Often, when administrators need to update or change configuration of devices, they must do so by looking for the device's IP address and login. Now, a simple click on the displayed devices brings administrators to the Web GUI for additional configuration. It is no longer necessary to look up the latest inventory list to confirm the IP address of a specific device.

ZyXEL

XS3700-24
24-port 10GbE L2+ Switch

Key Applications

SMB core

- Server
- Internet
- **USG1900** Unified Security Gateway
- **XS3700-24** 24-port 10GbE L2+ Switch
- **XGS3700-48** 48-port GbE L2+ Switch with 10GbE Uplink
- **XGS3700-24** 24-port GbE L2+ Switch with 10GbE Uplink
- **XGS3700-24HP** 24-port GbE L2+ PoE Switch with 10GbE Uplink
- **R&D dept.**
- **Sales dept.**
- **PoE applications**

Legend:
- 10GbE Copper
- 10GbE Fiber
- GbE
- GbE PoE

Specifications

Model	XS3700-24
Product name	24-port 10GbE L2+ Switch
Switch class	Layer 2 Plus (Layer 3 Lite)
Port Density	
Total port count	24
1000/10GBASE-T	8
10-Gigabit SFP+	12
10 Gigabit combo (SFP/RJ-45)	4
Performance	
Switching capacity (Gbps)	480
Forwarding rate (Mpps)	357.14
Packet buffer (byte)	4 M
MAC address table	16 K
L3 forwarding table	Max. 1 K IPv4 entries; Max. 512 IPv6 entries
Static route	64
IP interface	128
Power	
Input	100 - 240 V AC, 50/60 Hz
Max. power consumption (watt)	• Single PSU: 143.1 • Dual PSU: 161

Physical Specifications		
Item	Dimensions (WxDxH/)(mm/in.)	440 x 438 x 44/17.32 x 17.24 x 1.73
	Weight (kg/lb)	7.392/16.3
Packing	Dimensions (WxDxH/)(mm/in.)	615 x 550 x 115/24.21 x 21.65 x 4.53
	Weight (kg/lb)	9.721/21.43
Included accessories		• Power cord • Rack mounting kit

Environmental Specifications		
Operating	Temperature	0°C to 50°C/32°F to 122°F
	Humidity	10% to 95% (non-condensing)
Storage	Temperature	-40°C to 70°C/-40°F to 158°F
	Humidity	10% to 90% (non-condensing)
MTBF (hr)		446,034.72
Heat dissipation (BTU/hr)		• Single PSU: 487.971 • Dual PSU: 549.01
Acoustic noise		55 dBA

Features

Standard Compliance
- IEEE 802.3z 1000BASE-X
- IEEE 802.3ab 1000BASE-T Ethernet
- IEEE 802.3an 10G BASE-T Ethernet
- IEEE 802.3ae 10 Gbit/s Ethernet over fiber
- IEEE 802.3x flow control
- IEEE 802.3az EEE support
- IEEE 802.1p CoS support
- IEEE 802.1AB LLDP/LLDP-MED
- IEEE 802.3ah EFM (Link Discovery, Loopback) (V380)
- IEEE 802.1ag CFM
- Store and forward
- N-way auto-negotiation

Resilience and Availability
- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- IEEE 802.3ad LACP
- VRRP
- Loop guard
- ErrDisable recovery
- MRSTP (ZyXEL proprietary)
- Dual configuration files
- Redundant power supply support
- Dual flash images

Traffic Control
- 802.1Q static VLANs/dynamic VLANs: 1 K/4 K
- Port-based VLAN
- Protocol-based VLAN
- IP subnet-based VLAN
- Private VLAN
- VLAN trunking
- VLAN translation
- VLAN ingress filtering
- 802.1ad VLAN stacking (Q-in-Q)
- LACP algorithm of source/destination IP
- GVRP
- Selected Q-in-Q (V390)
- L2PT

Security
- 802.1x
- Port security
- MAC authentication
- Layer 2 MAC filtering
- Layer 3 IP filtering
- Layer 4 TCP/UDP socket filtering
- BPDU transparency
- Static MAC forwarding
- Multiple RADIUS servers
- Multiple TACACS+ servers
- 802.1x VLAN and bandwidth assignment by RADIUS

- Login authentication by RADIUS
- Login authentication by TACACS+
- TACACS+ accounting
- RADIUS accounting
- Authorization on TACACS+
- Authorization on console
- SSH v1/v2
- SSL
- Intrusion lock
- MAC freeze
- DHCP snooping
- ARP inspection
- ARP freeze (V410)
- Static ARP setting
- Static IP/MAC binding
- Policy-based security filtering
- Port isolation
- IP source guard
- Limit number of MAC per VLAN
- MAC search
- Guest VLAN
- ACL packet filtering (IPv4/IPv6)
- PPPoE relay agent
- PPPoE option82
- PPPoE IA
- CPU protection
- MAC pinning
- Interface related trap can be enable/disable by port

Quality of Service (QoS)
- No. of hardware queues per Port: 8
- 802.1p queuing method: SPQ/WRR/WFQ
- Storm control: Broadcast, Multicast, Unknown Unicast (DLF)
- Port-based rate limiting (Ingress/Egress): */64 kbps
- Rate limiting, per IP/TCP/UDP per port
- Policy-based rate limiting
- Policy-based bandwidth control granularity
- Ingress CIR for bandwidth control
- 802.3x flow control
- Port-based egress traffic shaping CIR/PIR supported
- Policy based prioritization
- Two Rate Three Color Marking (TRTCM)
- 802.1p Class of Service (SPQ, WFQ, SPQ/WFQ combination capable)
- DiffServ (DSCP)

Layer 2 Multicast
- L2 multicast (Group)
- IGMP snooping (v1, v2, v3)
- IGMP snooping fast leave
- Configurable IGMP snooping timer and priority
- IGMP snooping statistics

- IGMP throttling
- MVR support
- IGMP filtering
- IGMP snooping immediate leave
- IGMP snooping and proxy
- IPv6 MLD snooping proxy

Routing
- Static route
- Policy-based route
- IP port moving

Manageability
- SNMP v1, v2c, v3
- SNMP trap group
- RMON (1, 2, 3, 9)
- ICMP echo/echo reply
- syslog

IPv6 Management
- IPv6 over Ethernet (RFC 2464)
- IPv6 addressing architecture (RFC 4291)
- Dual stack (RFC4213)
- ICMPv6 (RFC4884)
- Path MTU (RFC 1981)
- Minimum path MTU size of 1280 (RFC 5905)
- Encapsulation for minimum PMTU of 1500
- Neighbor discovery (RFC4861)
- DHCPv6 Relay

Device Management
- iStacking
- Web interface
- Management through console, telnet, SNMP
- Firmware upgrade by FTP
- Remote firmware upgrade by FTP/Web
- Configuration saving and retrieving
- Multiple login supported
- Configure Clone
- Multilevel CLI
- CLI (Cisco like)
- DHCP servers
- DHCP relay per VLAN
- DHCP option 82
- Daylight Saving
- NTP
- Port mirroring
- Policy-based port mirroring
- RJ-45 out-of-band management port
- RS-232 out-of-band console port
- sFlow
- Remote port monitoring

MIB
- ZyXEL new private MIB
- RFC 1066 TCP/IP-based MIB
- RFC 1213, 1157 SNMPv2c/v3 MIB
- RFC 1493 bridge MIB
- RFC 1643 Ethernet MIB
- RFC 1757 RMON group 1, 2, 3, 9
- RFC 2011, 2012, 2013 SNMPv2 MIB
- RFC 2233 SMIv2 MIB
- RFC 2358 Ethernet-like MIB
- RFC 2674 bridge MIB extension
- RFC 2819, 2925 remote management MIB (V350)
- RFC 3621 Power Ethernet MIB
- RFC 4022 management information base for transmission control protocol
- RFC 4113 management information base for user datagram protocol
- RFC 4292 IP forwarding table MIB
- RFC 4293 management information base (MIB) for IP

Certifications

Safety
- LVD
- BSMI

EMC
- FCC Part 15 (Class A)
- CE EMC (Class A)
- BSMI ENC

RoHS
- Level A

ZyXEL One Network

ZON Utility
- Discovery of ZyXEL switches, APs and gateways*
- Centralized and batch configurations
  - IP configuration
  - IP renew
  - Device reboot
  - Device locating
  - Web GUI access
  - Firmware upgrade
  - Password configuration
  - One-click quick association with ZyXEL AP Configurator (ZAC)

Smart Connect
- Discover neighboring devices
- One-click remote management access to the neighboring ZyXEL devices

Gateway supporting ZON utility is scheduled for future release.

Accessories

Power Modules

Item	Description
RPS300	Power supply unit

Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	DDMI
SFP10G-SR	10-Gigabit SFP+	Duplex LC	850 nm	300 m (328 yd)	Yes
SFP10G-LR	10-Gigabit SFP+	Duplex LC	1310 nm	10 km (10936 yd)	Yes
SFP-1000T	Gigabit	RJ-45	-	100 m (109 yd)	-
SFP-BX1310-10-D	Gigabit	LC	1310 nm (TX); 1490 nm (RX)	10 km (10936 yd)	Yes
SFP-BX1490-10-D	Gigabit	LC	1490 nm (TX); 1310 nm (RX)	10 km (10936 yd)	Yes
SFP-LHX1310-40-D	Gigabit	LC	1310 nm	40 km (43744 yd)	Yes
SFP-LX-10-D	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
SFP-SX-D	Gigabit	LC	850 nm	550 m (601 yd)	Yes
SFP-ZX-80-D	Gigabit	LC	1550 nm	80 km (87488 yd)	Yes

Direct Attach Cables (Optional)

Model	Connector	Cable Length
DAC10G-1M	SFP+ to SFP+	1 m (39.37 inch)
DAC10G-3M	SFP+ to SFP+	3 m (118.11 inch)