



10 Gigabit Smart Switch Simplifies SMB Network Upgrades

- Upgrades your network to 10GbE connectivity easily and economically
- Simplified configuration with user-friendly web-based management GUI
- Flexible 10G connection to 10G servers and network storage through both copper and fiber
- Dual firmware images and configuration ensure network availability
- Future-proofed with IPv6 support
- Limited life-time warranty*
- ZyXEL One Network is supported

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

In today's rapidly changing world of cloud-based products and services, it can be difficult for large enterprises, as well as small and medium-sized businesses (SMBs) to decide how to best handle increased data and the demands of applications like VoIP, video streaming and IP surveillance. In this environment, networks need to be simultaneously faster and more reliable, as well as easy to set up and maintain. To help meet these challenges, ZyXEL has introduced the XS1920-12, a 10GbE smart switch for SMB that economically upgrades any network to high-speed 10GbE bandwidth.

Benefits

Affordable 10GbE network connectivity for SMB

When attempting to meet today's demand for more bandwidth, SMBs often face increased expenditures, difficult deployments and other complex issues. The XS1920-12 has been designed to overcome these challenges with ZyXEL's new 10GbE smart switch technology, which features ten (10) copper 10GbE connections and two (2) 10GbE SFP+ combos for 10G fiber links, offering additional flexibility for tricky deployments. The XS1920-12's small port count design makes it the ideal choice for small businesses looking for an affordable network switch solution.

Upgrade the network with investment-protection

Upgrading with the XS1920-12 is a hassle-free operation. Backward-compatibility for Gigabit network allows SMBs to leverage existing Cat5/Cat5e infrastructure. The XS1920-12 also future-proofs networks with IPv6 support and 10GbE connectivity when an SMB is ready to convert to Cat6A and above cabling. A Cat6A or above cabled network is able to use RJ45 connectors to provide higher bandwidth up to 100 m with 10GbE copper.

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.



ZyXEL onenetwork
Redefining network integration

XS1920-12
12-port 10GbE Smart
Managed Switch

Robust features to ensure network availability

The XS1920-12 protects users from network disruptions caused by internal errors or outside attack and ensures uninterrupted connectivity through several key features. Loop Guard helps networks avoid service disruptions caused by switching loops, and IP Source Guard (IPSG) shields your network from MAC spoof and ARP spoof attacks. Additionally, attacks such as BPDU, ARP and IGMP can target network facilities. However, CPU protection guarantees that a network continues to operate, even while under attack. In addition, dual images and configuration support guarantee network availability and reliability. These are just some of the ways that the XS1920-12 guarantees headache-free network connectivity for SMBs.

Smart management and advanced functionality

With features like L2 switching capacity, the XS1920-12 is able to function as a core switch, making it the cost-effective switching solution for SMBs. As part of the smart switch series, the XS1920-12 allows administrators to perform simplified network management via a user-friendly Web management interface.

Feature Highlights



10GbE Connectivity

When compared to Gigabit Ethernet switches, 10 Gigabit Ethernet switches offer increased scalability and efficiency for network infrastructure. The XS1920-12 comes with both 10GbE RJ-45 and 10GbE combo (RJ-45/SFP) connectivity, which allows easy and flexible upgrades and deployment of 10GbE networks.



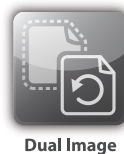
IPv6

With support for comprehensive IPv6 management features, the XS1920-12 helps businesses stay ahead of the competition and prepare for future IPv6 networks. Full IPv6 support features that include auto configuration, duplicate address prevention, dual-stack and neighbor discovery ensure a business's network investment is protected.



ZyXEL One Network Utility

The XS1920-12 features the ZON utility to streamline network management. Administrators can check locations, assign IPs, reboot and upgrade firmware for multiple switches through a single platform. This eliminates the need for administrators to use direct access or expensive and overly specific network management tools.



Dual Image

To provide a network with increased availability and reliability for SMBs, the XS1920-12 features dual image to reduce down time when firmware is being upgraded.



Neighbor Device Discovery

As part of the ZyXEL One Network experience, the XS1920-12 is able to discover all connected ZyXEL networking devices, as well as other devices supporting Link Layer Discovery Protocol (LLDP) so administrators can see what devices are connected, what ports are being used, device IPs and even firmware versions.



Web-Based Management

As with the entire smart switch series, there's no need for administrators to learn a complicated command line interface to manage the XS1920-12, which is able to act as a core switch in SMB networks. Administrators can easily manage the device through a handy Web-based tool.



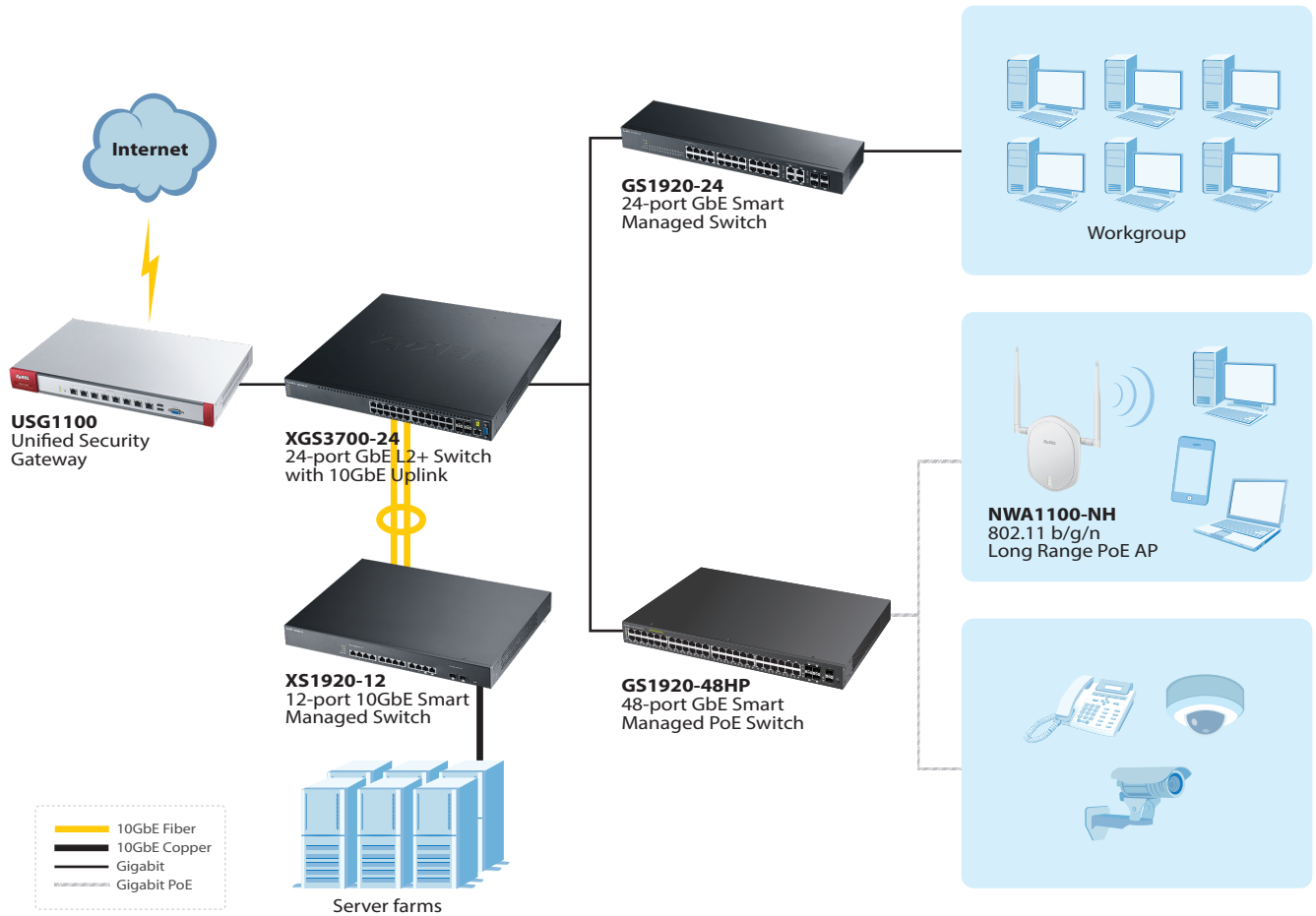
Web GUI Redirection

Administrators occasionally need to update or reconfigure devices by looking up their IP address and logging in. 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.


Application Diagram

Ideal for SMB

- Upgrade to a 10GbE network by purchasing only one switch
- Flexible deployments by connecting to a core switch with 10GbE fiber while linking server with 10GbE copper



Specifications

| Model | | XS1920-12 |
|-------------------------------|--|---------------------------------------|
| Product name | 12-port 10GbE Smart Managed Switch | |
| |  | |
| Switch class | Smart Managed | |
| Port Density | | |
| Total port count | 12 | |
| 1000/10GBASE-T | 10 | |
| 10 Gigabit combo (SFP/RJ-45) | 2 | |
| Performance | | |
| Switching capacity (Gbps) | 240 | |
| Forwarding rate (Mpps) | 178.6 | |
| Packet buffer (byte) | 2 M | |
| MAC address table | 16 K | |
| L3 forwarding table | Max. 512 IPv4 entries; Max. 256 IPv6 entries | |
| Static route | 64 | |
| IP interface | 32 | |
| Power | | |
| Input | 100 - 240 V AC, 50/60 Hz | |
| Max. power consumption (watt) | 94.1 | |
| Physical Specifications | | |
| Item | Dimensions (WxDxH)(mm/in.) | 440 x 330 x 44.5/17.32 x 12.99 x 1.75 |
| | Weight (kg/lb.) | 4.205/9.27 |
| Packing | Dimensions (WxDxH)(mm/in.) | 583 x 451 x 98/22.95 x 17.76 x 3.86 |
| | Weight (kg/lb.) | 5.683/12.53 |
| Included accessories | <ul style="list-style-type: none">• Power cord• Rack mounting kit | |
| Environmental Specifications | | |
| Operating | Temperature | 0°C to 50°C/32°F to 122°F |
| | Humidity | 10% to 90% (non-condensing) |
| Storage | Temperature | -40°C to 70°C/-40°F to 158°F |
| | Humidity | 10% to 95% (non-condensing) |
| MTBF (hr) | 839,624.71 | |
| Heat dissipation (BTU/hr) | 320.88 | |
| Acoustic noise (dBA) | 48.8 | |

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 802.3az EEE
- IEEE 802.3x flow control
- IEEE 802.3ad LACP aggregation
- IEEE 802.1AB LLDP/LLDP-MED

- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- IEEE 802.1Q VLAN Tagging
- IEEE 802.1p Class of Service (CoS) Prioritization
- IEEE 802.1X port authentication

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
- Loop guard
- ErrDisable recovery
- MRSTP (ZyXEL proprietary)
- Dual configuration files
- Dual images



XS1920-12

12-port 10GbE Smart Managed Switch

Traffic Control

- 802.1Q static VLANs/dynamic VLANs: 1 K/4 K
- Port-based VLAN
- Protocol-based VLAN
- IP subnet-based VLAN
- MAC-based VLAN
- Private VLAN
- Voice VLAN
- VLAN ingress filtering
- LACP algorithm of source/destination MAC/IP
- GVRP
- L2PT

Security

- 802.1X
- Port security
- Layer 2 MAC filtering
- Layer 3 IP filtering
- Layer 4 TCP/UDP socket filtering
- Static MAC forwarding
- Multiple RADIUS servers
- Multiple TACACS+ servers
- 802.1x VLAN and 802.1p assignment by RADIUS
- Login authentication by RADIUS
- Login authentication by TACACS+
- TACACS+ accounting
- Authorization on RADIUS
- Authorization on TACACS+
- SSL
- MAC freeze
- DHCP snooping
- ARP inspection
- Static IP-MAC-Port binding
- Policy-based security filtering
- Port isolation
- IP source guard
- MAC search
- Guest VLAN
- ACL packet filtering (IPv4/IPv6)
- CPU protection
- Interface related trap 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)
- Rate limiting per IP/TCP/UDP per port
- Policy-based rate limiting

- 802.3x flow control
- 802.1p Class of Service (SPQ, WFQ, SPQ/WFQ combination capable)
- DiffServ (DSCP)

Layer 2 Multicast

- L2 multicast
- 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 proxy mode & snooping mode selection
- MLD snooping

Manageability

- SNMP v1, v2c, v3
- SNMP trap group
- RMON (1, 2, 3, 9)
- ICMP echo/echo reply
- Syslog
- IEEE 802.1AB LLDP
- IEEE 802.1AB LLDP-MED

IPv6 Management

- IPv6 over Ethernet (RFC 2464)
- IPv6 addressing architecture (RFC 4291)
- Dual stack (RFC 4213)
- ICMPv6 (RFC 4443)
- Path MTU (RFC 1981)
- Minimum path MTU size of 1280 (RFC 5095)
- Encapsulation for maximum PMTU of 1500
- Neighbor discovery (RFC 4861)
- DHCPv6 relay

Device Management

- ZyXEL iStacking™
- Web interface
- Management through SNMP
- Remote firmware upgrade by Web
- Configuration saving and retrieving
- Configure clone
- DHCP relay per VLAN
- DHCP client
- Daylight saving
- NTP
- Port mirroring

MIB

- ZyXEL private common 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
- 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 EMC

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

Accessories

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 | Speed | Connector |
|-----------|--------------|-------------------|
| DAC10G-1M | SFP+ to SFP+ | 1 m (39.37 inch) |
| DAC10G-3M | SFP+ to SFP+ | 3 m (118.11 inch) |

For more product information, visit us on the web at www.ZyXEL.com



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