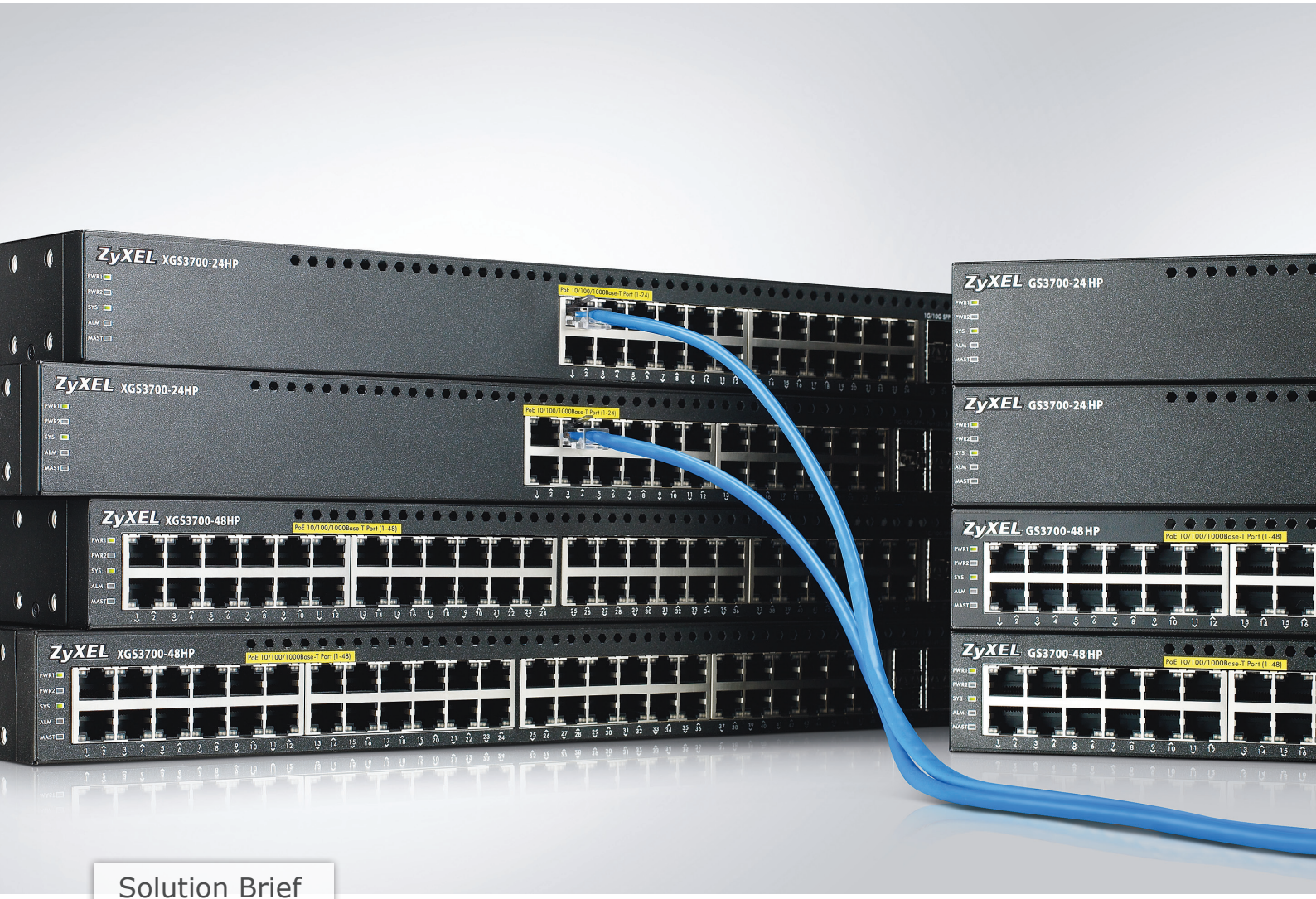
ZyXEL



Solution Brief

PoE Switching

ZyXELonenetwork

Redefining network integration

Introduction

As demands for connection from networking devices such as IP phones, IP cameras and access points increase, deployment complexity and cost rise as well. For less cable usage and investment, Power over Ethernet (PoE) technology provides both data connection and electrical power to devices through just one cable.

To fulfill various applications and flexible network deployments in different sectors, ZyXEL offers a complete portfolio including a wide range of Unmanaged, Smart Managed, and Managed PoE switches that accommodate Power Devices (PD) without limitation thanks to the IEEE 802.3af and 802.3at standard support.

Why ZyXEL PoE Switches?

ZyXEL PoE switches offer high-speed network connection and power supply to one PD through one single port. This reduces the need for extra outlets and extension cables, and it saves deployment cost and labor efforts as well.

Additionally, ZyXEL PoE switches feature advanced power management functions to control power budget easily and efficiently for businesses to enjoy the all-aspect PoE solution.

Benefits

High Power Budget

High power budget

ZyXEL PoE switches support the IEEE 802.3af PoE and 802.3at PoE Plus standards that provide up to 30 watts of power per port for advanced Powered Devices (PD) like 802.11ac wireless APs and video IP phones. The high power budget of up to 1000* watts enables PoE switches to comfortably accommodate the PDs required on a modern network edge.

** The highest total power budget refers to XGS/GS3700 series*

Plug and Play

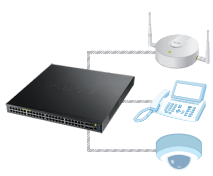
Plug and play

ZyXEL PoE switches support IEEE 802.3af and IEEE 802.3at standards so users can deploy normal or high-power PDs flexibly without additional settings. ZyXEL PoE switches provide complete portfolio from 8 to 48 ports and allow connections for both 15.4-watt IEEE 802.3af devices and 30-watt IEEE 802.3at devices without power-socket restriction to provide high-speed transmissions at the same time.

Intelligent PoE Technology

Intelligent PoE technology

The intelligent PoE technology enables more efficient use of power resources to deliver better ROI for businesses. In the Consumption Mode, the PoE switch automatically detects power consumption status of each PD and supplies only the required amount of power. This intelligent power allocation function minimizes the waste of power and helps businesses to save money while enabling the PoE switch to power more PDs.

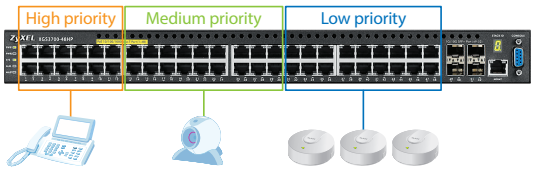


Required Power	Supplied Power	
	Consumption Mode	Without Consumption Mode
Up to 25 Watt		
Up to 12 Watt		
Up to 12 Watt		

Robust Power Management

Power supply policy

ZyXEL PoE switches can monitor individual and total power consumption levels and set power supply policies that maximize service availability. Users can assign certain ports to prioritized PDs to prevent system interruption due to the exceeded power budget from all PDs. The ZyXEL PoE switch is capable of adjusting power levels according to the power supply policy to make sure PDs function well and to offer businesses with a reliable PoE solution.



ZyXEL One Network experience

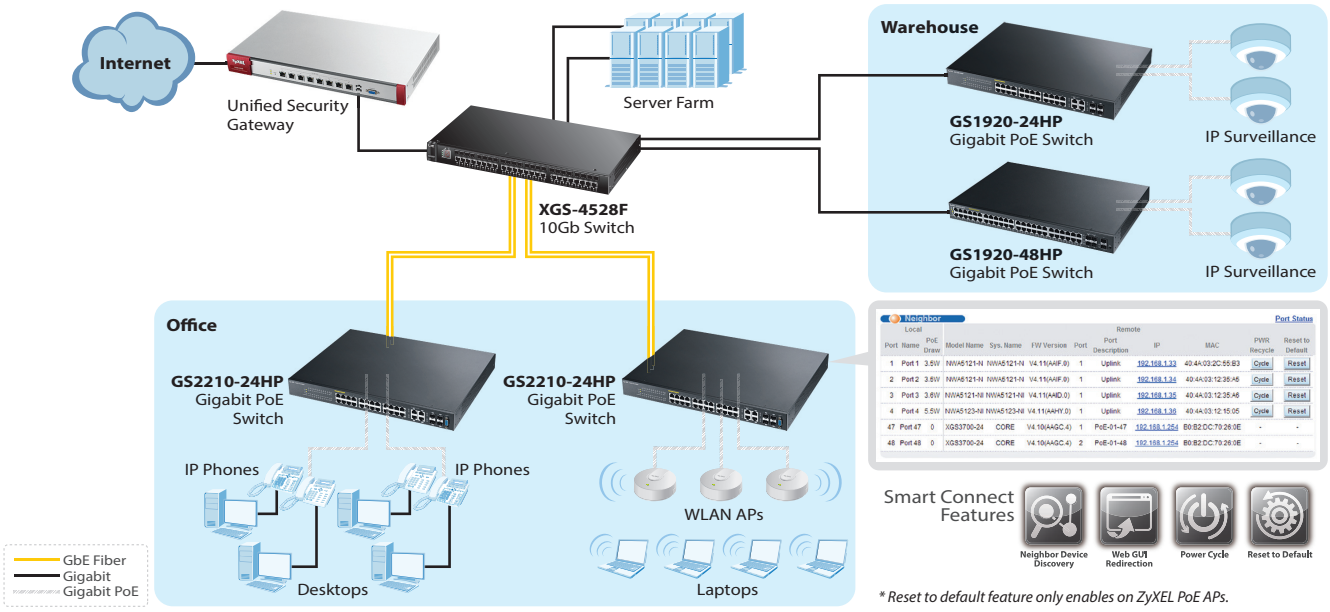
Aiming for relieving our customers from repetitive operations of deploying and managing a network, ZyXEL One Network is designed to simplify the configuration, management, and troubleshooting, allowing our customers to focus on the business priorities. ZyXEL One Network presents an easy-to-use tool, 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 even opens up its One Network protocols to third-party developers to help them delivering more integrated, easy-to-deploy network applications.

Application Diagram

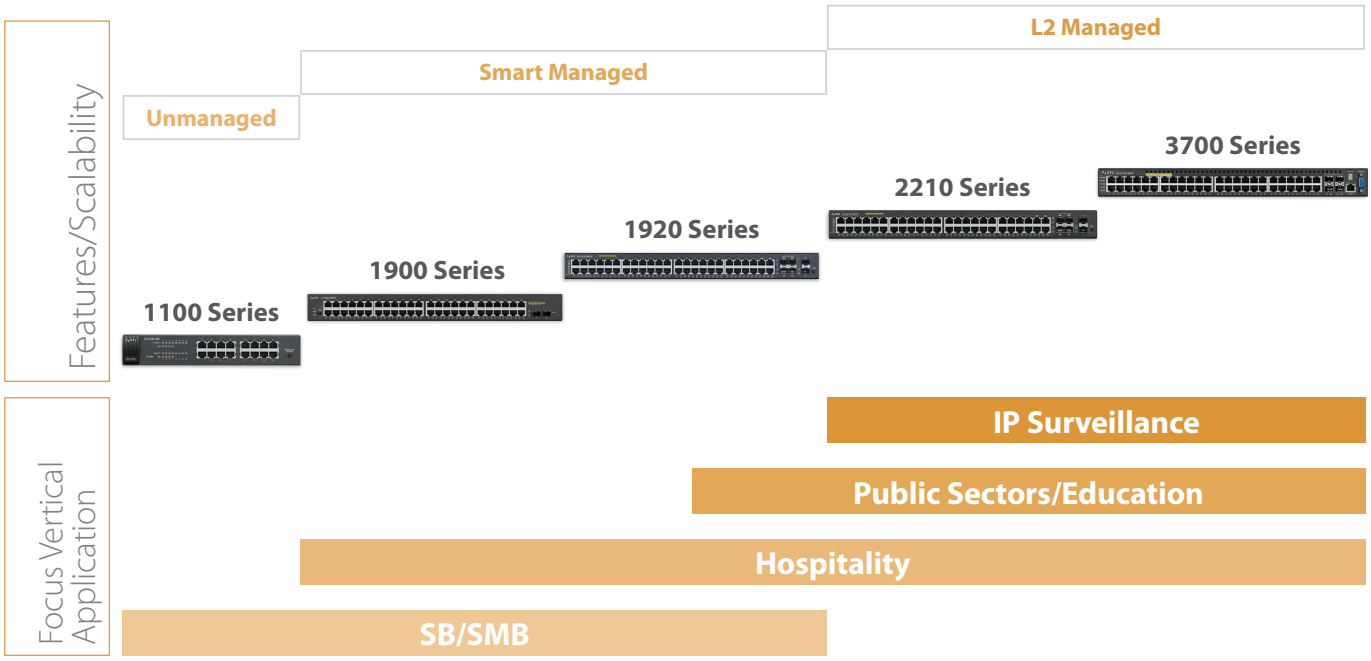
Flexible Network Deployment

ZyXEL's PoE solution makes it easy for different sectors to deploy powered devices like VoIP phones, wireless APs and IP surveillance cameras in challenging places like ceilings, walls, outdoors, or wherever electrical outlets are not easily available. In addition, the neighboring features of ZyXEL One Network can detect ports used by a neighboring device and display its IP information on the Web GUI of ZyXEL PoE to allow one-click remote control actions via that IP. For example, if there's a connected PD fails to operate, users can reset device to default or power cycle it remotely from the GUI.



** Reset to default feature only enables on ZyXEL PoE APs.*

ZyXEL PoE Switches Portfolio



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PoE Switching Solution Brief

ZyXEL PoE Switches Feature Matrix

Type	Unmanaged			Smart Managed				
Model	**ES1100-8P**	**ES1100-16P**	**GS1100-8HP**	**GS1900-8HP**	**GS1900-24HP**	**GS1900-48HP**	**GS1920-24HP**	**GS1920-48HP**
Product photo								
Port Density								
10/100 Mbps	4	8	-	-	-	-	-	-
10/100 Mbps PoE	4	8	-	-	-	-	-	-
100/1000 Mbps	-	-	4	-	-	24	-	-
100/1000 Mbps PoE	-	-	4	8	24	24	24	44
Gigabit SFP	-	-	-	-	2	2	-	2
Dual-personality Gigabit (SFP/RJ-45)	-	-	-	-	-	-	4	4
Performance								
Switching capacity	1.6 Gbps	3.2	16 Gbps	16 Gbps	52 Gbps	100 Gbps	56 Gbps	100 Gbps
Forwarding rate	1.2 Mpps	2.4	11.9 Mpps	11.9 Mpps	39 Mpps	74 Mpps	41.7 Mpps	74 Mpps
MAC addresses	1 K	8 K	8 K	8 K	8 K	8 K	16 K	16 K
Power over Ethernet								
Standard compliance	IEEE 802.3af	IEEE 802.3af	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at
Total PoE power budget (watt)	64	130	75	70	170	170	375	375
Green Features								
Fanless	Yes	-	Yes	Yes	-	-	-	-
IEEE Energy Efficient Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Type	Layer 2 Managed			Layer 2+ Managed			
Model	**GS2210-8HP**	**GS2210-24HP**	**GS2210-48HP**	**GS3700-24HP**	**GS3700-48HP**	**XGS3700-24HP**	**XGS3700-48HP**
Product photo							
Port Density							
10/100 Mbps	-	-	-	-	-	-	-
10/100 Mbps PoE	-	-	-	-	-	-	-
100/1000 Mbps	-	-	-	-	-	-	-
100/1000 Mbps PoE	8	24	44	24	48	24	48
Gigabit SFP	-	-	2	4	4	-	-
10 Gigabit SFP+ slots	-	-	-	-	-	4	4
Dual-personality Gigabit (SFP/RJ-45)	2	4	4	-	-	-	-
Performance							
Switching capacity	20 Gbps	56 Gbps	100 Gbps	56 Gbps	104 Gbps	128 Gbps	176 Gbps
Forwarding rate	15 Mpps	41.7 Mpps	74 Mpps	41.7 Mpps	77 Mpps	95 Mpps	131 Mpps
MAC addresses	16 K	16 K	16 K	16 K	16 K	16 K	16 K
Power over Ethernet							
Standard compliance	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at	IEEE 802.3af IEEE 802.3at
Total PoE power budget (watt)	180	375	375	Single PSU 460 W Dual PSU 1000 W	Single PSU 460 W Dual PSU 1000 W	Single PSU 460 W Dual PSU 1000 W	Single PSU 460 W Dual PSU 1000 W
Green Features							
Fanless	-	-	-	-	-	-	-
IEEE Energy Efficient Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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

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