NETGEAR®

ProSAFE® Gigabit Web Managed (Plus) Switches

#1 IN WEB/SMART SWITCHES

¹In Worldwide Market Share according to IHS Infonetics, June 2015

Control and Configure Beyond Plug-and-Play Connectivity

Today's growing businesses rely more on their network to carry out mission-critical business activities. Deployment of VoIP and IP surveillance needs the network intelligence to separate the voice and video traffic from data, and prioritize them accordingly. However, companies do not necessarily have more money or advanced training to deal with complex managed switches.

NETGEAR® ProSAFE® Gigabit Web Managed (Plus) Switches meet this growing need by providing fundamental network features such as VLANs, QoS, and IGMP Snooping that will help optimize the performance of business networks. ProSAFE Web Managed (Plus) switches come in a variety of configurations ranging from 5 port desktop to 24 port rackmount. Some models support Power-over-Ethernet (PoE) and can power devices such as IP phones, IP surveillance cameras and wireless access points with just an Ethernet cable; perfect for low cost PoE deployments. ProSAFE Web Managed (Plus) Switches are the perfect upgrade from the plug-and-play unmanaged switch, delivering essential networking features at a very affordable price.

Highlights

- Enable network configuration and management at the price point of Unmanaged Switches
- Gigabit connection delivers up to 2000 Mbps of dedicated, non-blocking bandwidth per port
- Simple, yet useful network set-up on top of plug-and-play connectivity
- Flexible management via PC-based Utility Tool
- VLAN support for traffic segmentation

- Quality of Service (QoS) for traffic prioritization
- Auto "denial-of-service" (DoS) prevention
- Troubleshoot connection issues via cable test
- Loop detection and broadcast storm controls
- IGMP snooping v1, v2 and v3 support for multicast optimization
- Rate limiting for better bandwidth allocation

- Port mirroring for network monitoring
- Port trunking for bigger uplink bandwidth
- Jumbo frame support
- Energy Efficient Ethernet (IEEE802.3az) support for maxium power savings
- LIFETIME Hardware Warranty* (excludes external power adapters on applicable models)
- LIFETIME 24/7 Technical Support*
- LIFETIME Next-Business-Day Replacement*

LIFETIME WARRANTY Hardware Warranty

LIFETIME WARRANTY Next Business Day

LIFETIME Tech Support

Hardware at a Glance

Model name	Form-Factor	FRONT		REAR	
		10/100/1000 Base-T RJ45 ports	PoE 802.3af Ports	Power Supply	PoE budget
GS105E	Desktop	5	N/A	External Power Adapter	N/A
GS105PE	Desktop	5	2	NO POWER SUPPLY – must be powered from another PoE device	PoE pass-thru: 19W with 802.3at/7.9W with 802.3af input power
GS108E	Desktop	8	N/A	External Power Adapter	N/A
GS108PE	Desktop	8	4	External Power Adapter	53W
GS116E	Desktop	16	N/A	External Power Adapter	N/A
JGS516PE	Rackmount	16	8	Internal	85W
JGS524E	Rackmount	24	N/A	Internal	N/A
JGS524PE	Rackmount	24	12	Internal	100W

Software at a Glance

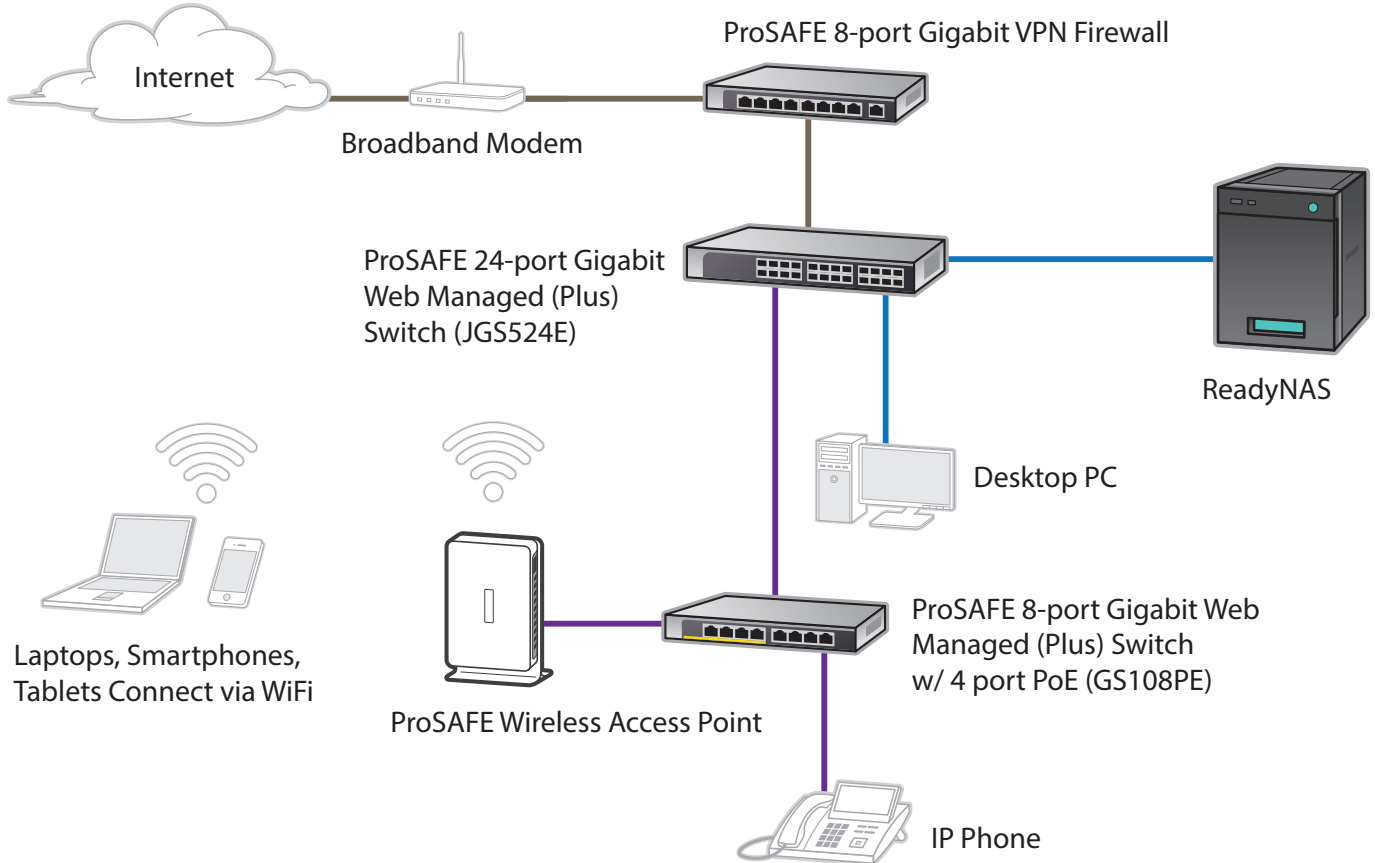| Management	IP Multicast filtering	EEE (802.3az) Auto-EEE	VLANs	QoS	Port Trunking	Rate Limiting	Jumbo Frame Support
PC Utility Tool Web GUI	IGMP Snooping v1, v2 and v3	Yes	Port-based, IEEE802.1Q-based VLANs	Port-based, IEEE802.1p-based	Yes	Yes	Yes

Features and Benefits

Hardware Features	Benefits
All Gigabit models	Making Web Managed (Plus) Switch an ideal upgrade for SMB network combining management capability with higher speed and better performance
PoE offerings in Web Managed (Plus) Switches	With half of the ports capable of supporting PoE, these PoE Web Managed (Plus) models are the most cost-efficient Gigabit Ethernet solution for converged networks where PoE support is needed, but isn't necessary on all ports
Desktop and rackmount††	Flexibile deployment for either desktop placement, undertable mount, wall mount as well as rackmount
Software Features	**Benefits**
VLAN	Segment network into smaller groups for more secure and efficient use of network resources
QoS	For optimized network performance and better delivery of mission-critical traffic such as voice and video
IGMP Snooping	For improved network efficiency on delivering multicast traffic
Port Trunking	Build up a bigger bandwidth to support aggregated uplink traffic
Port Mirroring	For better and quicker network diagnotics and troubleshooting
Cable Test	Easily identify bad Ethernet cables

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ProSAFE® Gigabit Web Managed (Plus) Switches

Target Application

SMB Network Application

Why the NETGEAR Gigabit Web Managed (Plus) Switch is the ideal upgrade from Unmanaged Switches for SMB networks:

· Configurable with simple set-up
· Build multiple user groups
· Prioritize voice and video traffic
· Monitor and troubleshoot

Key
VLAN 1 ——————
VLAN 2 ——————

Internet

Broadband Modem

ProSAFE 8-port Gigabit VPN Firewall

ProSAFE 24-port Gigabit
Web Managed (Plus)
Switch (JGS524E)

ReadyNAS

Desktop PC

Laptops, Smartphones,
Tablets Connect via WiFi

ProSAFE Wireless Access Point

ProSAFE 8-port Gigabit Web
Managed (Plus) Switch
w/ 4 port PoE (GS108PE)

IP Phone

Technical Specifications

PRODUCT SPECIFICATIONS								
Product	GS105Ev2	GS105PE	GS108Ev2	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
Gigabit ports	5	5	8	8	16	16	24	24
# of PoE ports	NA	2	NA	4	NA	8	NA	12
Total PoE Power budget (Watts)	NA	PoE pass-thru: 19W with 802.3at/ 7.9W with 802.3af input power	NA	53	NA	85	NA	100
Max MAC entries	8K	8K	4K	4K	16K	16K	16K	16K
Buffer size			192KB	192KB	6Mbit per system	6Mbit per system	6Mbit per system	6Mbit per system
Energy Efficient Ethernet (IEEE 802.3az) compliant	Yes							

PERFORMANCE SPECIFICATION								
Forwarding modes	Store-and-forward							
Bandwidth	10 Gbps	10 Gbps	16 Gbps	16 Gbps	32 Gbps	32 Gbps	48 Gbps	48 Gbps
Priority queuing	Weighted Round Robin (WRR), Strict or both							
Jumbo frame support	up to 9K packet size							
Acoustic noise (dB) (ANSI-S10.12)	0	0	0	0	0	24.5	0	24.4
Mean Time Between Failures (MTBF) (hrs)	2,531,294	1,685,972	2,525,259	1,242,394	504,993	840,354	243,476	643,506

L2 SERVICES – VLANS								
VLAN (# Supported)	64	64	32	32	100	100	100	100
IEEE 802.1Q VLAN Tagging	Yes							
Port-based VLAN	Yes							

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Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev2	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
L2 SERVICES – AVAILABILITY								
Port Trunking	No	No	No	No	Yes	Yes	Yes	Yes
Number of LAGs & # of members	NA	NA	NA	NA	8 LAGs & 2 to 4 members	8 LAGs & 2 to 4 members	8 LAGs & 2 to 4 members	8 LAGs & 2 to 4 members
L2 SERVICES – MULTICAST FILTERING								
IGMP Snooping (v1, v2 and v3)	Yes							
IGMP Snooping queries	No	No	No	No	Yes	Yes	Yes	Yes
Block unknown Multicast	Yes							
Supported Mulitcast groups	128	128	128	128	64	64	64	64
L3 SERVICES – DHCP								
DHCP Client	Yes							
QUALITY OF SERVICE (QOS)								
Rate limiting	Yes							
DSCP	Yes	Yes	No	No	No	No	No	No
IEEE 802.1p COS	Yes							
Port-based VLAN	Yes							
TOS	Yes	Yes	No	No	Yes	Yes	Yes	Yes
WRED (Weighted Deficit Round Robin)	Yes							
Strict Priority queue technology	Yes							

Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev2	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
IEEE NETWORK PROTOCOLS								
• IEEE 802.3 Ethernet • IEEE 802.3i 10BASE–T • IEEE 802.3u 100BASE–T			• IEEE 802.3ab 1000BASE–T • IEEE 802.1p Class of Service • IEEE 802.3 af (PoE)			• IEEE 802.1Q VLAN Tagging • IEEE 802.3x full-duplex flow control		
MANAGEMENT								
System Password	Yes							
PC Utility	Yes							
Port Mirroring	Yes							
Max number of source ports allowed (many to 1)	4	4	7	7	15	15	23	23
Many to One Port Mirroring	Yes							
Cable Test utility	Yes							
FW Upgrade thru Plus Utility (TFTP)	Yes							
Config Download (to Switch) thru Plus Utility	Yes							
Config Upload (to Server)	Yes							
MISCELLANEOUS FEATURES								
Loop Detection	Yes							
DoS Prevention	Yes							
Broadcast Storm Control	Yes							
Energy Efficient Ethernet (EEE)	Yes							
LEDs								
Per port	Speed, Link, Activity							
Per device	Power, Fan and PoE Power Status							

Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev2	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
PHYSICAL SPECIFICATIONS								
Dimensions (mm)	94x100x27	158x100x27	158x101x29	158x101x29	286x101x26	328x170x43	328x170x43	328x170x43
Weight (kg)	0.25	0.47	0.50	0.54	0.84	1.67	1.40	1.84
Fan	0	0	0	0	0	1	0	1
POWER CONSUMPTION (WHEN ALL PORTS USED, LINE–RATE TRAFFIC AND MAX POE)								
Worst case, all ports used, line-rate traffic, max PoE (W)	2.6	22.0	4.5	60.0	10.0	110.0	13.8	123.0
ENVIRONMENTAL SPECIFICATIONS								
Operating								
Operating Temperature	32° to 122°F (0° to 50°C)							
Humidity	90% maximum relative humidity, non-condensing							
Altitude	10,000 ft (3,000 m) maximum							
Storage								
Storage Temperature	– 4° to 158°F (–20° to 70°C)							
Humidity	95% maximum relative humidity, non-condensing							
Altitude	10,000 ft (3,000 m) maximum							
Electromagnetic Emissions and Immunity								
Certifications Class (including but not limited to CE mark, commercial, FCC Part 15, VCCI, EN55022 (CISPR 22), C-Tick, EN50082-1, EN55024, CCC)	B	B	B	A	A	A	A	A
Safety								
Certifications	CE mark, commercial CSA certified (CSA 22.2 #950) UL listed (UL 1950)/cUL IEC 950/EN 60950								

Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev2	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
WARRANTY AND SUPPORT								
Warranty	Switch: Lifetime* Power adapter: 2 years	Lifetime*	Switch: Lifetime* Power adapter: 2 years			Lifetime*		
Technical Support	Lifetime Tech Support* via chat, 90 day tech support via email							
Next-Business-Day (NBD) Replacement	Lifetime*							
ProSUPPORT OnCall 24x7, Category 1** Service Packs	PMB0311 (1 yr.) PMB0331 (3 yrs.) PMB0351 (5 yrs.)							
PACKAGE CONTENTS								
All models	ProSAFE® Gigabit Web Managed (Plus) Switch Power cord or power adapter (depending on model; GS105PE has no power supply or power cord) Quick Install Guide Resource CD with PC Utility software Rackmount kit (JGS516PE, JGS524Ev2, and JGS524PE only)							

Ordering Information

ORDERING INFORMATION			
GS105E		**JGS516PE**	
North America and Latin America	GS105E-200NAS	North America and Latin America	JGS516PE-100NAS
Europe	GS105E-200PES	Europe	JGS516PE-100EUS
Australia	GS105E-200AUS	Asia Pacific	JGS516PE-100AJS
United Kingdom	GS105E-200UKS	China	JGS516PE-100PRS
GS105PE		**JGS524E**	
Worldwide	GS105PE-10000S	North America and Latin America	JGS524E-200NAS
GS108E		Europe	JGS524E-200EUS
North America and Latin America	GS108E-100NAS	Asia Pacific	JGS524E-200AJS
Europe	GS108E-100PES	China	JGS524E-200PRS
Australia	GS108E-100AUS	**JGS524PE**	
United Kingdom	GS108E-100UKS	North America and Latin America	JGS524PE-100NAS
China	GS108E-100PRS	Europe	JGS524PE-100EUS
GS108PE		Asia Pacific	JGS524PE-100AJS
North America and Latin America	GS108PE-300NAS	China	JGS524PE-100PRS
Europe	GS108PE-300EUS		
Asia Pacific	GS108PE-300AJS		
China	GS108PE-300PRS		
GS116E			
North America and Latin America	GS116E-200NAS		
Europe	GS116E-200PES		
Australia	GS116E-200AUS		
United Kingdom	GS116E-200UKS		
Japan	GS116E-200JPS		
China	GS116E-200PRS		

* This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller, and modifications to product may void the warranty; covers hardware, fans, and internal power supplies—not software or external power supplies; see http://www.netgear.com/about/warranty/ for details. 2-year warranty on power adapters on applicable models. Lifetime technical support includes basic phone support for 90 days from purchase date and lifetime online chat support when purchased from a NETGEAR authorized reseller.

** The NETGEAR OnCall 24x7 contract provides unlimited phone and email technical support for your networking product. For ProSAFE products purchased prior to 06/2014, also includes next business day hardware replacement.

† NETGEAR #1 in Fixed Web (Smart)-Managed Worldwide Market Share according to IHS Infonetics Ethernet Switches Market Share and Forecast, 1Q15 Edition, June 2015. NETGEAR #1 in US Market Share according to NPD data for Unmanaged and Web/Smart Switches, April 2015.

†† Only JGS516PE, JGS524E, and JGS524PE are rack-mountable.