NETGEAR®

ProSAFE® Gigabit Plus Switches

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 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 Plus switches come in a variety of configurations ranging from 5 port desktop to 24 port rackmount. Certain Plus switch 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 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[1]
- LIFETIME 24/7 Technical Support
- LIFETIME Next Business Day Replacement

[1]2 Year warranty on power adapter on applicable models

NETGEAR®

Hardware at a Glance

Model name	Form-Factor	FRONT		REAR	
		10/100/1000 Base-T RJ45 ports	PoE 802.3af	Power Supply	PoE budget
GS105E	Desktop	5	N/A	External Power Adapter	N/A
GS105PE	Desktop	5	2	None – Requires power from a PoE switch	up to 22w
GS108E	Desktop	8	N/A	External Power Adapter	N/A
GS108PE	Desktop	8	4	External Power Adapter	45w
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

NETGEAR®

Features and Benefits

Hardware Features	Benefits
All Gigabit models	Making Plus Switch an ideal upgrade for SMB network combining management capability with higher speed and better performance
PoE offerings in Plus Switches	With half of the ports capable of supporting PoE, these PoE Plus models are the most cost-efficient Gigabit Ethernet solution for converaged 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

ProSAFE® Gigabit Plus Switches

Target Application
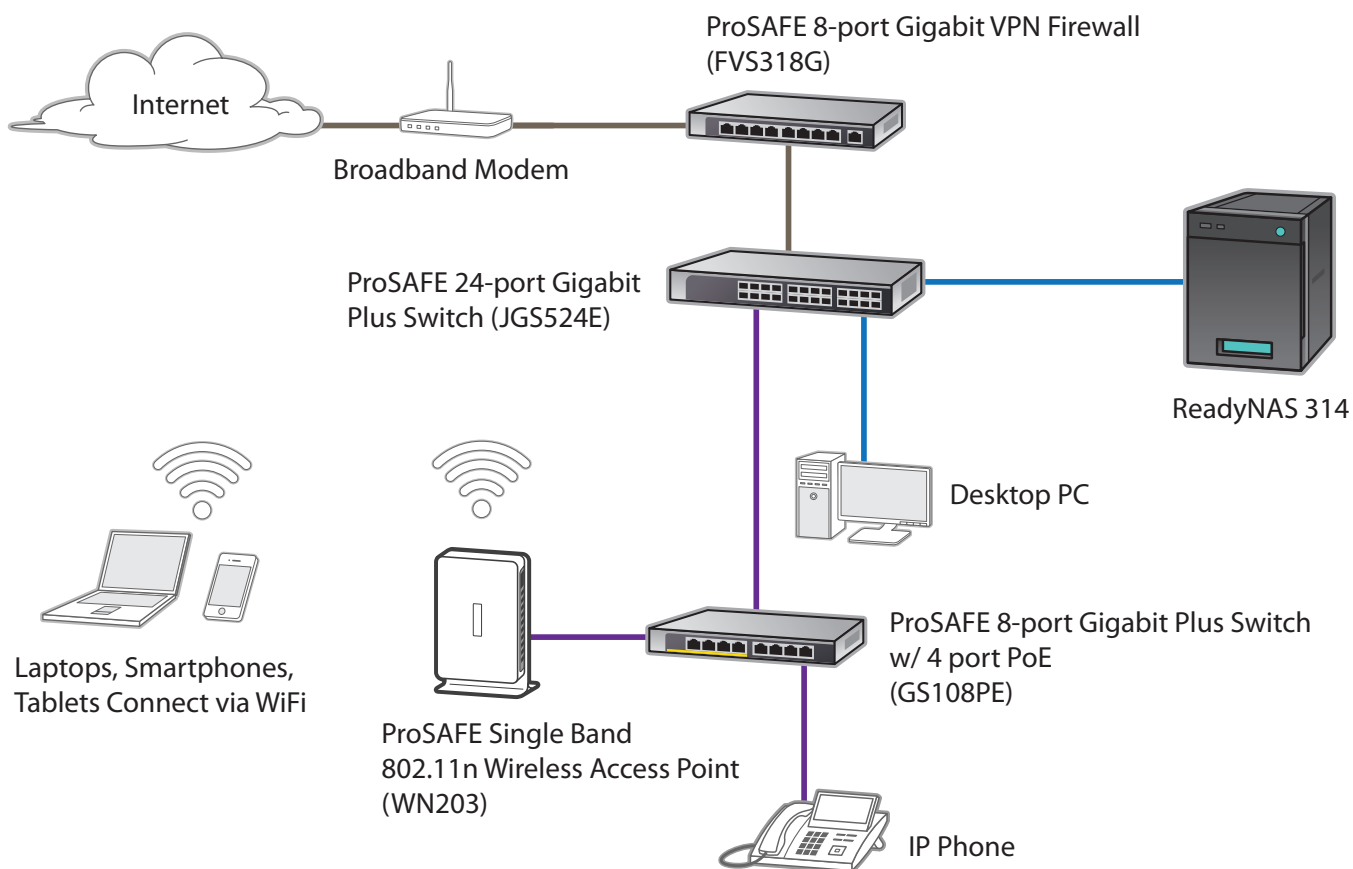
SMB Network Application

Why the NETGEAR Gigabit 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

ProSAFE 8-port Gigabit VPN Firewall (FVS318G)

Internet

Broadband Modem

ProSAFE 24-port Gigabit Plus Switch (JGS524E)

ReadyNAS 314

Laptops, Smartphones, Tablets Connect via WiFi

ProSAFE Single Band 802.11n Wireless Access Point (WN203)

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

Desktop PC

IP Phone

Technical Specifications

PRODUCT SPECIFICATIONS								
Product	GS105Ev2	GS105PE	GS108Ev3	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: 20W with AT in, 8W with AF in.	NA	45	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 Enthernet (IEEE802.3az complaint)	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 (ANSI-S10.12)	0	0	0	0	0	24.5	0	24.4
Mean Time Between Failures (MTBF)			2,525,259	1,242,392	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							

Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev3	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	Yes	Yes	No	No	No	No
IEEE 802.1p COS	Yes							
Port-based VLAN	Yes							
TOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WRED (Weighted Deficit Round Robin)	Yes							
Strict Priority queue technology	Yes							

Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
IEEE NETWORK PROTOCOLS								
IEEE 802.3 Ethernet	IEEE 802.1p Class of Service							
IEEE 802.3i 10BASE-T	IEEE 802.3 af (PoE)							
IEEE 802.3u 100BASE-T	IEEE 802.1Q VLAN Tagging							
IEEE 802.3ab 1000BASE-T	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							

Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
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				
PHYSICAL SPECIFICATIONS								
Dimensions	94x101x26	158x 105x27	158x101x29	158x101x29	286x 101x26	328x 169x43mm	328x 170x43	328x 169x43mm
Weight	0.27Kg	0.45Kg	0.51Kg	0.54Kg	0.84Kg	1.67 Kg	1.4Kg	1.84Kg
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	3	25	4.45	60	10	110	13.8	123
ENVIRONMENTAL SPECIFICATIONS								
Operating								
Operating Temperature	0-50°C	0-50°C	0-40°C	0-40°C	0-50°C	0-50°C	0-50°C	0-50°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				

Technical Specifications

Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
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							
WARRANTY AND SUPPORT								
Warranty	Lifetime on switch and 2-year on Power adapter	Lifetime	Lifetime on switch and 2-year on Power adapter			Lifetime		
Technical Support	Lifetime Tech Support via chat, 90 day tech support via email							
Next Business Day Replacement	Lifetime							
PACKAGE CONTENTS								
All models	ProSAFE® Gigabit Plus Switch Power cord or power adapter (depending on model; GS105PE has no power supply or power cord) Rack-mounting kit Quick Install Guide Resource CD with PC Utility software							

Ordering Information

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

24x7 Lifetime Advanced Technical Support includes Remote Diagnostics performed by our technical experts for prompt resolution of technical issues.

Lifetime Next Business Day onsite hardware replacement support included: see http://onsite.netgear.com for coverage, availability and terms and conditions.