



Enabling Small and Mid-sized Businesses to Effectively Manage  
Bandwidth and Security

NETGEAR ProSafe Advanced Smart Switches provide small and mid-sized companies with a viable alternative to fully managed switches. This range of switches provides customers with all the features typically found in fully managed switches, without adding complexity or additional costs.

Growing small and mid-sized companies rely on their network to provide the foundation for essential business applications: mission-critical data applications, security, Voice over IP (VoIP), video-conferencing and much more. They need full-featured network switches that can accommodate and manage growth, support the full range of network applications and secure the network without the overhead and complexity of fully managed switches. The ProSafe Gigabit Smart Switches with Static Routing deliver the scalability, flexibility, reliability, and performance that growing small and medium-sized businesses need in an affordable and easy-to-manage package.

Each ProSafe Gigabit Smart Switch with Static Routing comes with 24 or 48 10/100/1000 Mbps ports with two or four shared SFP ports that provide high performance for bandwidth-intensive applications like ERP and large file transfers. In addition, these switches support 32 static routes to enable inter-VLAN routing and manage bandwidth more effectively by managing broadcast storms, as well as tighter security. Finally, these switches come with a complete suite of advanced features for more robust security, higher quality of service and high availability. This switch is equipped with highly advanced features such as access control lists (ACL), 802.1x port authentication, enhanced QoS, Auto-Voice VLAN, rate limiting and IGMP snooping among others to provide a small and medium-sized business with a network that is geared for growth while providing scalability and reliability.

An intuitive, Web-browser interface provides simple yet comprehensive management, making it a snap to fully realize the potential of the rich feature set offered by these switches. Why buy fully managed stackable network switches designed and priced for the enterprise? NETGEAR ProSafe Gigabit Smart Switches with Static Routing are designed for small and growing businesses.

**Scalability, Bandwidth  
Management, Security,  
Cost-effectiveness**

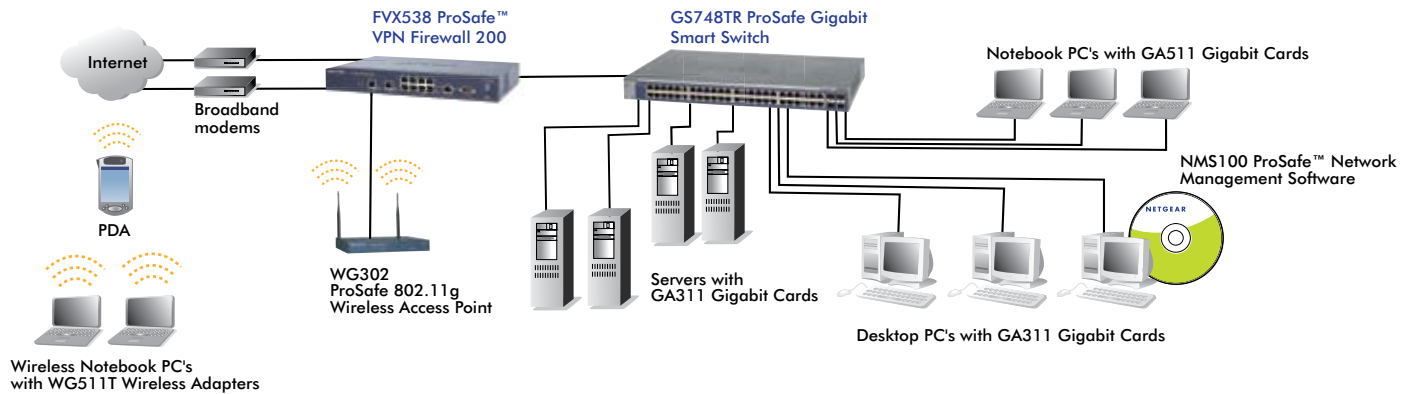
Organizations that deploy VLANs realize the benefits of restricting broadcast storms and effective bandwidth management. However, for communication between VLANs, a router is typically deployed in the core. This can present some inherent problems for network managers. To begin with, an expensive router is required at the core. Moreover, the router has to handle LAN and WAN traffic, as well as security. This can increase the burden on the router and slow down the network considerably. By implementing the ProSafe Gigabit Smart Switch with Static Routing, inter-VLAN communication can be off-loaded from the router, thereby making the network run faster. Additionally, network managers can also save time and resources by having a less expensive router at the core.



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\*Optional modules include AGM731F ProSafe 1000BASE-SX SFP GBIC, AGM732F ProSafe 1000BASE-LX SFP GBIC, AGM733 ProSafe 1000BASE-ZX SFP GBIC





### Advanced Security

These switches also provide advanced features that provide more robust security to the SMBs. These include:

- 802.1x for authentication
- ACL filtering to permit or deny traffic based on MAC and/or IP addresses.

### Advanced Quality of Service (QoS)

Priority queuing ensures high-priority traffic gets delivered efficiently, even during congestion from high traffic bursts. Companies implementing network telephony or video conferencing, for example, need to be able to prioritize such voice and video traffic and other real-time applications over less latency-sensitive traffic to ensure reliability and quality. The ability to prioritize traffic ensures quality of latency-sensitive services and applications despite increasing traffic loads. The ProSafe Gigabit Smart Switches with Static Routing provide an extensive set of QoS features:

- 802.1p-based prioritization
- Layer 3-based (DSCP, TOS) prioritization
- Layer 4-based (TCP/UDP port numbers) prioritization
- Auto-Voice VLAN
- Rate-limiting

### 'Smart' Management features

Manage all ProSafe Gigabit Smart Switches with Static Routing from an easy-to-use Web console that can be used to configure all features, as well as monitor and troubleshoot. These switches also have SNMP (v1, v2c and v3) to collect and track data to monitor the network health, as well as manage devices, and more easily enforce critical IT controls and policies. SNMP v2c is most commonly deployed, as it provides better reporting capabilities than SNMP v1. Companies interested in more robust security may opt for SNMP v3, which provides data encryption.

All ProSafe Gigabit Smart Switches with Static Routing provide world-class reliability with a lifetime warranty and optional ProSupport Maintenance Packages. These switches are optimized for ProSafe Network Management Software (NMS100) and work with other SNMP-based management software.

## Technical Specifications

### • Network Protocol and Standards Compatibility:

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X
- IEEE 802.3x full-duplex flow control

### • Interfaces

- GS724TR: 24 10/100/1000 Mbps switching ports
- GS748TR: 48 10/100/1000 Mbps switching ports
- 2 or 4 built-in shared SFP Gigabit Ethernet fiber ports for 100/1000 Mbps connectivity
- Auto-sensing and auto-negotiating capabilities for all copper ports
- Auto Uplink™ on all ports to make the right connection

### • Administrative Switch Management

- 32 static routes
- ICMP Router Discovery Protocol (IRDP)
- IEEE 8021.Q VLAN (255 groups, Static)
- IEEE 802.1p Class of Service (CoS)
- DSCP – Layer 3 QoS
- IEEE 802.3ad static or dynamic link aggregation (LACP)
- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1w Rapid Spanning Tree Protocol
- IEEE 802.1S Multiple Spanning Tree Protocol
- BPDU flooding
- IGMP snooping v1/v2
- SNMP v1, v2c, v3
- RFC 1213 MIB II
- RFC 1643 Ethernet Interface MIB
- RFC 1493 Bridge MIB
- RFC 2131 DHCP client
- RFC 2737 Entity MIB
- RFC 2674 – P-Bridge MIB
- RFC 2674 – Q-Bridge MIB
- RMON group 1, 2, 3, 9
- Private Enterprise MIB

- IEEE 802.1x (RADIUS)
- Access control list (ACL) – MAC, IP
- Layer 3- and 4-based Quality of Service (QoS)
- TACACS+
- RADIUS accounting
- Port-based security by locked MAC addresses
- Storm control for broadcast, multicast and unknown unicast packets
- Port-based ingress/egress rate limiting
- STNP
- IEEE 802.1ab LLDP
- LLDP-MED
- Auto-Voice VLAN
- Protected ports
- Port mirroring support
- Web-based configuration
- HTTP and HTTPS
- Configuration backup/restore
- Password access control
- DHCP filter
- DHCP relay
- Denial-of-service (DoS) prevention
- Dual Image
- Firmware upgradeable
- Syslog
- Ping & traceroute

### • Performance Specifications

- Forwarding modes: Store-and-forward
- Bandwidth
  - GS724TR: 48 Gbps
  - GS748TR: 96 Gbps
- Network latency: Less than 5 microseconds for 64-byte frames in store-and-forward mode for 1000 Mbps to 1000 Mbps transmission
- Buffer memory: 750 KB
- Address database size: 8,000 media access control (MAC) addresses per system
- Addressing: 48-bit MAC address
- Mean time between failures (MTBF):
  - GS724TR: 265,404 hours (~30 years)
  - GS748TR: 196,908 hours (~22 years)

### • LEDs

- Unit: power, fan
- Per port: link, speed, activity

### • Power Supply

- Power Consumption:
  - GS724TR: 36.8W
  - GS748TR: 71.2W
- 100-240V AC/50-60 Hz universal input

### • Physical Specifications

- Dimensions (h x w x d):
  - GS724TR: 43 x 440 x 205 mm (1.69 x 17.32 x 8.08 in)
  - GS748TR: 43 x 440 x 257 mm (1.69 x 17.32 x 10.13 in)
- Weight:
  - GS724TR: 3.10 kg (6.83 lb)
  - GS748TR: 4.22 kg (9.30 lb)

### • Environmental Specifications

- Operating temperature: 32° to 131° F (0° to 55° C)
- Storage temperature: -4° to 158° F (-20° to 70° C)
- Operating humidity: 90% maximum relative humidity, non-condensing
- Storage humidity: 95% maximum relative humidity, non-condensing
- Operating altitude: 10,000 ft (3,000 m) maximum
- Storage altitude: 10,000 ft (3,000 m) maximum

### • Electromagnetic Compliance

- CE mark, commercial
- FCC Part 15 Class A
- VCCI Class A
- EN 55022 (CISPR 22)
- EN 55024 (CISPR 24)
- C-Tick

### • Safety

- PCE mark, commercial
- CUL 60950 (Listed)/ EN 60950 (Low Voltage Directive)

**Warranty**

- NETGEAR Lifetime Warranty

**System Requirements**

- Category 5 network cables
- Network card for each PC
- Network software (e.g., Windows®)

**Modules**

- AGM731F ProSafe 1000BASE-SX SFP GBIC: Module with LC connectors for 50um or 62.5um multi-mode fiber cable
- AGM732F ProSafe 1000BASE-LX SFP GBIC: Module with LC connectors for 9um single-mode fiber cable
- AGM733 ProSafe 1000BASE-LZ SFP GBIC: Module with LC connectors for 9um single-mode fiber cable

**Package Contents**

- ProSafe 24- or 48-port Gigabit Smart Switch with Static Routing (GS724TR or GS748TR)
- Rubber footpads
- Power cord
- Rack-mount kit
- Resource CD installation guide
- Warranty/support information card

**Ordering Information**

- GS724TR
  - North America: GS724TR-100NAS
  - Europe: GS724TR-100EUS
  - Australia: GS724TR-100AUS
  - Japan: GS724TR-100JPS
- GS748TR
  - North America: GS748TR-100NAS
  - Europe: GS748TR-100EUS
  - Australia: GS748TR-100AUS
  - Japan: GS748TR-100JPS

**ProSupport® Information  
GS724TR**

- **OnCall 24x7, Category 1**
  - PMB0331-100 (U.S. only)
  - PMB0331
- **XPressHW, Category 1**
  - PRR0331

**GS748TR**

- **OnCall 24x7, Category 2**
  - PMB0332
- **XPressHW, Category 2**
  - PRR0332-100

**NETGEAR®**

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\*Free basic installation support provided for 90 days from date of purchase. Advanced product features and configurations are not included in free basic installation support; optional premium support available.

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