



## NETGEAR vs. HP, 3Com, and D-Link

The NETGEAR GSM7200 series of Layer 2 managed switches is the right choice for no frills applications within small- to medium-size companies. They provide the right combination of price and capabilities for a desktop edge switch within single workgroups or, with our combo copper/fiber ports, for link aggregation between multiple servers and switches. Not too much, not too little. Available in 12-, 24- and 48-port models, the GSM7200 series provides Gigabit Ethernet connectivity, multiple copper/fiber combo ports, and Layer 2 managed capabilities—all at an one of the industry's most affordable price points.

Several characteristics differentiate these switches from their competitors, including:

- **Wire-speed, non-blocking design**  
Ensures reliable data transmission and no dropped packets.
- **Full compliance with Layer 2 industry standards**  
Ensures complete interoperability with other network devices.
- **Lower Total Cost of Ownership**  
An affordable solution to future-proof your network investment.
- **Combo Ports**  
Up to twelve ports on the GSM7212 deliver the greatest flexibility to connect copper or fiber cabling.

## Prompting Questions

- **Is affordability without compromising quality an important consideration for your network?**  
It never makes business sense to pay for more than you need. It also doesn't make sense to risk your important network traffic with a poor-quality switch. NETGEAR provides the essential quality and features for the SMB market without an added premium.
- **Do you really need the capabilities of a Layer 3 Managed Switch?**  
Not every application needs the expense or IT management demands of an L3 switch. If you're just using your switch to move data, set up trunks, or prioritize traffic, a Layer 2 switch can meet your needs safely and affordably. When your switch needs are this simple, why pay a premium for features you don't need? NETGEAR Layer 2 Managed Switches give you the L2 features you need—without the high price you don't.
- **Does it make sense to have the flexibility to connect copper and fiber without additional expense?**  
Network designs change over time. Given this fact, it's good to have the flexibility to change topology without incurring extra cost. With NETGEAR, you have the option to change the configuration of copper or fiber going to your switch. You can change the number of copper ports to accommodate a new mix of desktops. Or, using fiber connections, you can link the workgroup to other network resources or aggregate links between other switches at distances that exceed the length copper wiring can provide.
- **Do you have the IT resources to support Layer 3 switches?**  
Layer 3 Managed switches require a higher level of network expertise than Layer 2. If you don't need the Layer 3 capabilities, why add the Layer 3 overhead demands to your network management requirements?

## GSM7212—Twelve Combo Ports

The 12-port GSM7212 is unique among competing products. It is the only Layer switch to provide 12 combo ports. This exceptional flexibility lets users adapt the switch to any combination of copper and fiber interconnects. The GSM7212 can be used to link ten desktops via copper and two network resources—such as servers or printers—via fiber. In a different application, the combo ports enable the switch to be used to aggregate up to twelve fiber connections to link multiple floors. No other Layer 2 switch of any port density offers this flexibility.

## Advantages vs. Competition

### Hewlett-Packard

**Company:** Hewlett-Packard focuses primarily on solutions for the enterprise. As a result, HP Layer 2 products are heavy on enterprise-level capabilities and the associated premium enterprise pricing—a costly overkill for small- to medium-size organizations. Enterprise focus may also result in lower level of support for smaller organizations.

#### Product—HP ProCurve 2848, 2824

- The HP offering is nearly twice as expensive per port as the comparable NETGEAR switch.
- Their “stacking” is actually “clustering” - they proxy from one device to connect to the others.
- This “clustering” does not provide a common switching fabric and still requires multiple configuration files for each switch.

### 3Com

**Company:** 3Com also focuses on the enterprise market. This lack of commitment to medium-size businesses results in products that are too expensive and feature-rich for the SMB market. There also seems to be a move to phase out older product lines for newer enterprise-class products that are not priced for the SMB market.

#### Products—3Com SuperStack III 3848, 3824, 3812

- 3Com models provide virtually the same feature set as NETGEAR but are twice as expensive per port.
- Supports fewer than half the number of VLANs as NETGEAR.
- Does not support broadcast storm control—can't reduce or eliminate the impact of excess broadcasts.
- 12-port model only provides 4 SFP combo ports.

### D-Link

**Company:** D-Link tends to pursue trends rather than markets. This lack of product and market focus has yielded an unfavorable reputation for shoddy off-shore manufacturing and questionable reliability.

#### Product—DGS-3224TGR, DGS-3048

- Nearly twice as expensive per port as comparable NETGEAR offering.
- Does not support broadcast storm control—can't reduce or eliminate the impact of excess broadcasts.
- Fans and power supplies are limited to a 3-year warranty.
- Only supports half as many VLANs as NETGEAR.

## Competitive Comparison Chart

	NETGEAR GSM7248	HP ProCurve 2848	D-Link DGS-3048	3Com 3848
Ports 10/100/1000	48	48	48	48
GBIC/SFP Module slots	4 SFP	4 SFP	4 SFP	4 SFP
Rackmountable	Yes	Yes	Yes	Yes
802.1x	Yes	Yes	Yes	Yes
Bandwidth	96 Gbps	96 Gbps	96 Gbps	96 Gbps
Jumbo Frames	Yes	Yes	Yes	No
Broadcast Control	Yes	No	No	No
DiffServ	Yes	No	Yes	No
Management	L2	L2	L2	L2
Multiple Spanning Tree	Yes	No	No	No
Packet Forwarding	71.4 Mpps	71.4 Mpps	35.6 Mpps	69.8 Mpps
Port Trunking	Yes	Yes	Yes	Yes
Rapid Spanning Tree	Yes	Yes	Yes	Yes
RMON	Yes	Yes	Yes	Yes
SNMP	v1, v2c, v3	v1, v2c, v3	v1, v3	v1, v2c
SSL/SSH & HTTPS	Yes	Yes	Yes	Yes
Traffic Prioritization (QoS)	Yes	Yes	Yes	Yes
VLAN (# supported)	512	256	255	255
Warranty	Limited Lifetime	Limited Lifetime	Limited Lifetime	Limited Lifetime

	NETGEAR GSM7224	HP ProCurve 2824	D-Link DGS-3224TG	3Com SuperStack 3 3824
Ports 10/100/1000	24	48	24	24
GBIC/SFP Module slots	4 SFP	4 SFP	4 SFP	4 SFP
Rackmountable	Yes	Yes	Yes	Yes
802.1x	Yes	Yes	Yes	Yes
Bandwidth	48 Gbps	48 Gbps	48 Gbps	48 Gbps
Jumbo Frames	Yes	No	No	No
Broadcast Control	Yes	No	No	No
DiffServ	Yes	Yes	Yes	Yes
Management	L2	L2	L2	L2
Multiple Spanning Tree	Yes	No	No	No
Packet Forwarding	35.7 Mpps	34.7 Mpps	35.6 Mpps	35.6 Mpps
Port Trunking	Yes	Yes	Yes	No
Rapid Spanning Tree	Yes	Yes	Yes	Yes
RMON	Yes	Yes	Yes	Yes
SNMP	v1, v2c, v3	v1, v2c, v3	v1, v3	v1, v2c
SSL/SSH & HTTPS	Yes	Yes	Yes	Yes
Traffic Prioritization (QoS)	Yes	Yes	Yes	Yes
VLAN (# supported)	512	256	256	254
Warranty	Limited Lifetime	Limited Lifetime	Limited Lifetime	Limited Lifetime

### Target Market

The ideal applications include small office businesses, single high-speed workgroups within a larger organization, link aggregation between floors of a multi-story facility, or high-speed server farm connectivity in the data center.

	NETGEAR GSM7212	3Com 3812
Ports 10/100/1000	12	12
GBIC/SFP Module slots	12 SFP	4 SFP
Rackmountable	Yes	Yes
802.1x	Yes	No
Bandwidth	24 Gbps	24 Gbps
Jumbo Frames	Yes	No
Broadcast Control	Yes	No
DiffServ	Yes	No
Management	L2	L2
Multiple Spanning Tree	Yes	No
Packet Buffer Memory	171 Kbytes	Not Clear
Packet Forwarding	17.9 Mpps	17.6 Mpps
Port Trunking	Yes	No
Rapid Spanning Tree	Yes	Yes
RMON	Yes	Yes
SNMP	v1, v2c, v3	v1
SSL/SSH & HTTPS	Yes	No
Traffic Prioritization (QoS)	Yes	Yes
VLAN (# supported)	512	255
Warranty	Limited Lifetime	Limited Lifetime

### Overcoming Objections

#### • I'm a 3Com/HP/Cisco shop?

No problem. All NETGEAR switches are fully compliant with Layer 3 industry standards so they'll work seamlessly with your current networking infrastructure. You can protect your current investment and still get a more affordable solution.

#### • Why is an enterprise focus such a negative?

Enterprise focus isn't negative—if you're an enterprise. If you're in the SMB market, an enterprise focus means you pay a premium for features you don't need.

#### • Why shouldn't I just use Layer 3 switches?

If you have a need for Layer 3 switch traffic between VLANs with traffic management, you should consider one of NETGEAR's Layer 3 switches. But if you don't need those capabilities, why pay for something you won't use? For many applications, Layer 2 capabilities are plenty and an upgrade to Layer 3 only adds expense and more network management overhead.

#### • Why shouldn't I go with an industry leader?

There are different types of leadership. If there is a clear leadership position that you value, by all means, make that choice. But when it comes to Layer 2 switches, there are no technology leaders. As a result, your leadership choices come down to reliability and affordability. NETGEAR is just as reliable as some of the better known names. And NETGEAR is the clear pricing leader.

#### • Won't Layer 3 switches give me greater flexibility?

The choice between Layer 2 and Layer 3 isn't really about flexibility. It's about your needs. If your application only requires Layer 2 performance, a Layer 3 switch won't provide any more flexibility. You'd end up paying a premium for capabilities you don't need.

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