

NETGEAR delivers sophisticated enterprise-class core switching that's priced right for SMBs

A massive port density, small rack footprint and an unbelievably low price makes the ProSAFE M6100 ideal for SMBs struggling to tame their networks.

Its innovative design makes it highly versatile and there are no unpleasant surprises as all advanced features are included as standard.



The ProSAFE M6100 targets SMBs with growing networks

and offers a more sophisticated and affordable expansion alternative to traditional switch stacking. This compact 4U chassis accepts a range of high port density Gigabit and 10-Gigabit (10GbE) switch blades allowing SMBs to deploy it at the network core, campuses to use it as an access solution or enterprises as an edge device.



NETGEAR offers a choice selection of switch blades with Gigabit and 10-Gigabit options

The M6100 offers the industry's highest density in a 4U chassis as a fully populated system can deliver a maximum of 144 Gigabit or 72 10GbE RJ-45 ports or a mixture of both. Even better, it does it at the price the competition won't be able to match with a 40 x Gigabit/2 x 10GbE/PoE+ starter configuration coming in at under £3,500 ex VAT.

Value looks even better as the system comes with a lifetime hardware warranty and, unlike most competing blue chip vendors, there are no additional licenses to consider.

What you see is what you get as the price includes lifetime on-line chat technical support, next business day hardware replacement and all advanced Layer 2, Layer 3 and Layer 4 features.

Hardware Options

The M6100 makes switch stacking look positively outdated as the chassis employs a passive backplane with a high 1.4Tbps fabric capacity. It has three full-width switch blade slots with the fourth bay below accepting up to four 1000W hot-plug PSUs.

Each slot has dual 40-Gigabit channels to the backplane providing each switch blade with 80-Gigabit half-duplex and 160-Gigabit full duplex connections. A key feature of this distributed fabric is unlike products such as Cisco's Catalyst 4500 family, the M6100 doesn't require a dedicated supervisor module as any of the switch blades can take on this role and also team up with a second to provide full management redundancy.

NETGEAR offers a choice of four switch blades with the XCM8948 providing 48 Gigabit RJ-45 ports. The XCM8944 reduces the Gigabit count to 40 and teams them up with a pair of dual-personality RJ45/SFP+ 10GbE ports while the XCM8944F gives you 40 Gigabit SFP ports instead. The flagship XCM8924X blade delivers sixteen RJ45/SFP+ 10GbE combo ports plus a bank of eight RJ-45 10GbE ports.

PoE upgrades

NETGEAR's PoE upgrades are very slick as the XCM8948 and XCM8944 blades accept field upgradeable daughter-cards. These are very simple to install and NETGEAR offers versions that supply 30W per port PoE+ or 60W per port UPOE.

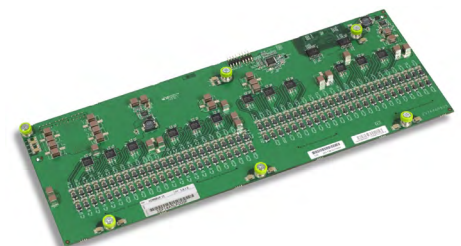
Swift deployment

The M6100 is easy to deploy as we connected a port on one of the switch blades to the lab network and pointed a browser at the IP address assigned to it by our DHCP server. Each switch blade also has an OOB (out-of-band) service port plus RJ-45 and mini-USB serial ports for CLI access.

Engineers that prefer the CLI will find it easy to use with full documentation provided on all available commands.

The web interface is well designed and provides a single pane-of-glass view of the entire chassis. It opens with an overview of the chassis hardware and selecting the Device View provides an active graphic of the chassis showing connected ports each with quick links to their individual configuration pages.

Switch blades in the first two slots can be designated as primary and standby supervisors. They both maintain the saved and running configurations so if the primary supervisor fails, is reset or removed, the other takes over and uses the forwarding table stored in memory to avoid any service interruptions.



Gigabit switch blades can be upgraded to PoE+ or UPOE status by fitting a daughter-card

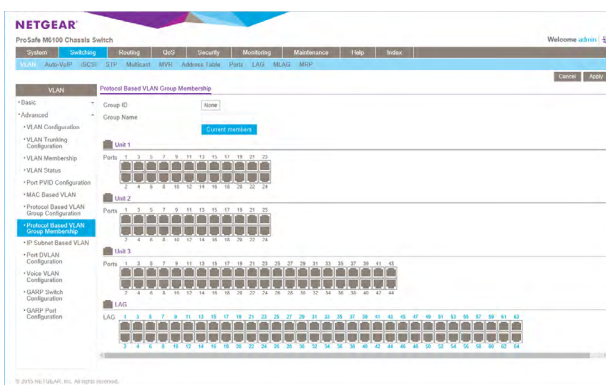


The management web interface is well designed and provides a useful chassis graphical view

Features galore

All L2 switching features are present and correct with VLANs including support for port, protocol, MAC, private, guest and even DVLANs (double VLANs). NETGEAR's Auto-VoIP also makes light work of prioritising traffic on IP phone networks using protocols or OUIs.

MLAG (multi-chassis link aggregation) support brings the M6100 firmly into the enterprise space. MLAGs allow multiple ports on supervisory blades to be used to pair two M6100 chassis together over high-speed, redundant links.



All advanced switching and routing features are included in the base price

Another L2 feature that makes the M6100 stand out is Auto-iSCSI which can automatically detect iSCSI traffic from multi-vendor initiators and targets and use VLAN tags or DSCP mappings to prioritise it. We had no problems using this in the lab where we could view all active iSCSI sessions from the web console and drill down further to see

details such as initiator and target IP addresses plus session uptime.

Routing features are equally impressive and made all the more so as all advanced L3 features are included as standard and not as expensive options. These include IPv4 and IPv6 support plus OSPF/OSPFv3 and BGP along with Proxy ARP and PBR (policy-based routing).

More management

The web interface provides plenty of details on switch activity with the System view showing all installed switch blades, their operational status, supervisory mode and firmware versions. Individual

port traffic statistics are viewed from the Monitoring tab which can be drilled down into for more detailed information.

All hardware logs are viewed from the same section and the switch even runs an sFlow agent that can send packet and interface counter data to a collector system. Along with a cable test facility, Green Ethernet technology is supported so the switch

will reduce power consumption on ports with low utilisation.

PoE features

PoE details are plentiful as we could see which switch blades had PoE+ or UPOE daughter-cards installed, total available power, consumed power and whether the chassis PSUs or optional RPU was supplying it. Power thresholds can be

applied on a per-port basis as can power priorities, while the port view shows which ones have PoE devices attached and their detected class.

ProSAFE NMS300

NETGEAR's ProSAFE NMS300 software provides full network-wide system monitoring and is free for up to 200 devices. After securing access to authenticated users and running its discovery routine on the lab network, we could monitor servers, switches and wireless APs as well as the M6100, and create custom dashboards showing the most active devices, those with errors, wireless networks, sFlow sources and much more.

View From The Lab

NETGEAR's ProSAFE M6100 brings chassis-based switching and routing to SMBs at a remarkably low price. It delivers the highest Gigabit and 10-Gigabit port densities on the market and comes with all features included as standard.

The clever design adds supervisor redundancy without wasting any expansion slots and the low-cost PoE+ and UPOE upgrade kits provide valuable future-proofing. Add in the high-performance and highly resilient switch fabric plus extreme ease of use and you have the perfect network upgrade path for budget conscious businesses.

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