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The World's Source for Cabling and Network Connectivity℠

Catalyst 4000 Series

The Cisco Catalyst® 4000 series offers high-performance, medium-density 10/100/1000-megabit per second Ethernet modular switching platform for the wiring closet and data centre.

The Catalyst 4000 series provides an advanced high-performance enterprise switching solution optimized for wiring closets with up to 96 users and data centre server environments that require up to 36 Gigabit Ethernet ports. The Catalyst 4000 series provides intelligent Layer 2 services leveraging a multiGigabit architecture for 10/100/1000-megabit Ethernet switching. The modular three-slot Catalyst 4003 system leverages the software code base from the industry-leading Catalyst 5500/5000 series in order to provide the rich and proven feature set that customers demand in the wiring closet for true end-to-end enterprise networking solutions.

Series Features

- ***New High-Performance Architecture for Today and Tomorrow***

Up to 96 10/100 Ethernet ports, or up to 36 Gigabit Ethernet ports, can be installed into one managed unit. Performance is a blazingly fast 18 million packets per second (pps) throughput, with a 24 gigabit bandwidth switching fabric. You can easily evolve to Gigabit Ethernet, either now or in the future, by using flexible, hot-swappable GBIC (GigaBit Interface Converter) modules, available for either 1000Base-SX (multimode) or 1000Base-LX/LH (single mode or multimode) modules. This cost-effective protection allows you to easily change the port media-optics on a port-by-port basis without needing to replace an entire module. The Catalyst 4000 series provides the bandwidth and scalability to grow and meet the throughput and network response times of even the most demanding client and server host systems.

- ***Modular Chassis***

The Catalyst 4000 series Ethernet switches are available in a chassis-based form factor with flexible modular configurations providing a broad range of port densities for 10/100-megabits to 1000-megabit speeds. The Catalyst 4003 chassis offers:

- A three-slot modular chassis, with slot one reserved for a supervisor engine and two remaining slots for switch modules
- Two power supply bays that support redundant (option), load-sharing, fault-tolerant AC power supplies
- One hot-swappable fan tray bay
- Single IP-address management
- Port, power, and link redundancy

- ***Configuration Flexibility and Modular Superiority***

Ethernet switch modules that deliver hot swappable, plug-and-play enterprise intelligence today, while providing easy growth and flexible protection to keep pace with increasing network demands tomorrow. Four different Catalyst 4000 series modules are available, which can be mixed The Catalyst 4003 offers a comprehensive, scalable suite of 10/100/1000-megabit and matched to suit a wide range of wiring closet or data centre applications. All Gigabit Ethernet ports can be 1000BASE-SX or 1000BASE-LX/LH by using flexible, hot-swappable GBIC modules. The Catalyst 4000 series supports the following switching modules:

- ***48-port 10/100-megabit Ethernet*** - This module provides 48 ports of dedicated 10/100 Ethernet switching for Ethernet or Fast Ethernet client or server switching. All ports can utilize Fast EtherChannel for higher speed uplinks or server connections.

- ***32-port 10/100-megabit Ethernet plus two-port Gigabit Ethernet uplinks*** - This module provides 32 ports of dedicated 10/100 Ethernet switching for Ethernet or Fast Ethernet client or server switching, along with 2 dedicated Gigabit Ethernet connections for Gigabit EtherChannel connection to a high-speed core, or Gigabit Ethernet server connections. All 10/100 ports can utilize Fast EtherChannel for higher speed uplinks or server connections.

- ***6-port Gigabit Ethernet*** - This module provides 6 ports of dedicated Gigabit Ethernet uplinks for high-speed backbone switch-to-switch applications, or smaller server farm applications. It makes use of versatile GBIC technology, so intrabuilding multimode connections can be intermixed with long-distance campus single mode connections. All ports can utilize Gigabit EtherChannel for high-speed interconnection applications.

- ***18-port Gigabit Ethernet*** - his module is specifically targeted at building cost-effective Gigabit Ethernet server farms, rather than backbone switch-to-switch applications. It provides two dedicated Gigabit Ethernet uplinks, as well as up to 16 ports per module for high-performance Gigabit Ethernet server connectivity. The 16 server ports can burst to Gigabit Ethernet line rate, and share 8 Gbps of full duplex bandwidth into the switching fabric. Since all ports use GBICs, the amount of oversubscription can be controlled simply by varying the number of GBICs used. The server ports use the standard IEEE 802.3x flow control (PAUSE frame) mechanism to control Gigabit Ethernet host traffic.

- ***Catalyst 4003 Port Density Configuration Ranges***

The Catalyst 4003, fully loaded, will support one supervisor engine and two switching modules. The supervisor engine, which is included with the chassis, is required in slot one. The Catalyst 4003 will support a wide variety of useful configurations for both the midrange wiring closet (up to 96 Fast Ethernet) and the data centre server farms (for example: 36 Gigabit Ethernet serfer connections). In table 1, overleaf, each column indicates a potential port configuration option for the Catalyst 4003.

- ***Proven Catalyst Enterprise Software***

Today's wiring closets require advanced support of emerging application requirements for tighter interactions with Layer 3 core routers and multilayer distribution switches. Catalyst 4000 series workgroup switching delivers consistent high-end enterprise features by supporting the same feature set as the industry-leading Catalyst 5500/5000 series software. Developed from a heritage of proven, award-winning Catalyst enterprise end-to-end solutions, the Catalyst 4003 delivers market-leading, midrange performance and intelligent application integration.

- ***Scalability and Resiliency***

Evolving to Gigabit Ethernet, either now or in the future, is easy because of the modular chassis flexibility and the variety of module speed mixes. The Catalyst 4000 series is designed to meet customer needs ranging from affordable bandwidth segmentation to multi-Gigabit performance with Gigabit Ethernet uplinks and the ability to scale up to 8 Gbps for each Gigabit EtherChannel logical link. In addition, the Catalyst 4003 will meet requirements for device redundancy, link resiliency, and network availability, providing dedicated bandwidth directly to individual users, as well as servers, printers, and high-speed connections to company data centres.

- *Redundant Power*

To ensure reliable, fault-tolerant network operations, the Catalyst 4003 supports redundant, load-sharing power supplies. Port redundancy is supported with Spanning Tree Protocol enhancements UplinkFast and PortFast. Link redundancy is supported with Fast EtherChannel and Gigabit EtherChannel, ensuring that mission-critical links to routers, switches, and servers are available following a failure.

- ***High-Speed Server Farm Connections***

Catalyst 4003 switching system is a cost-effective enterprise 10/100/1000 Ethernet switch targeted primarily at medium-density Layer 2 wiring closets. In addition, the Catalyst 4003 can be configured as a Gigabit Ethernet switch for network server farm applications - up to 36 connections.

- *Standards Based*

The Catalyst 4000 series supports industry-standard IEEE 802.3 Ethernet plus IEEE 802.3u 10BaseT, 100BaseTX, and IEEE 802.3z 1000Base-X enabling seamless integration into any existing Ethernet environment. Shared media networks can be improved immediately, benefiting from switched segmentation, allowing dedicated bandwidth to be allocated from 10 Mbps up to 1000 Mbps per user, thus eliminating the network delays and wiring closet meltdowns common in growing networks.

Table 1

Number of 10/100 Ethernet ports	96	80	64	48	48	48	32	32	32	0	0	0	0	0
Number of Gigabit Ethernet ports	0	2	4	0	6	18	2	8	20	6	12	18	24	36

Technical Specifications for the Catalyst 4000 Series

Table 2 Gigabit Ethernet Link Distances

Fiber Core:	62.5um Multimode		50um Multimode		9/10um Singlemode
Fiber Modal Bandwidth	160/500 MHz-km	200/500 MHz-km	400/400 MHz-km	500/500 MHz-km	NA
1000BASE-SX	220m	275m	500m	550m	NA
1000BASE-LX/LH[1]	550m	550m	550m	550m	10km

- ***Standard Network Protocols***

  - Ethernet: IEEE 802.3, 10BaseT
  - Fast Ethernet: IEEE 802.3u, 100BaseTX
  - Gigabit Ethernet: IEEE 802.3z, IEEE 802.3x
  - 1000BaseX (GBIC)
  - 1000BaseSX
  - 1000BaseLX/LH
  - VLAN Trunking/Tagging: IEEE 802.1Q
  - Spanning-Tree Protocol: IEEE 802.1D
  -

- ***Network Management***

CiscoWorks 2000 Network Management Suite, Resource Manager Essentials includes:

- Inventory Manager
- Change Audit
- Device Configuration Manager
- Software Image Manager
- Availability Manager
- Syslog Analyzer
- Cisco Management Connection

- **CiscoWorks 2000 Network Management Suite, CiscoWorks for Switched Internetworks (CWSI) Campus includes:**
    - Network topology discovery and display services
    - VLAN provisioning and logical display representation
    - Traffic monitoring and performance assessment
    - End-station tracking with search utilities
    - ATM and LANE service configuration and performance monitoring
    - CiscoView graphical device management
    - Network topology integrity checking

- Cisco Discovery Protocol
- Cisco Virtual Trunking Protocol (VTP)
- Simple Network Management Protocol (SNMP) agent v1 (RFCs 1155-1157)
- SNMPv2c
- Cisco workgroup Management Information Base (MIB)
- Ethernet MIB (RFC 1643)
- Ethernet repeater MIB (RFC 1516)
- SNMP MIB II (RFC 1213)
- Remote monitoring (RMON) (RFC 1757)
- Remote monitoring (RMON II) (RFC 2021)
- Interface table (RFC 1573)
- Bridge MIB (RFC 1493)
- SMT 7.3 (RFC 1285)
- Switched Port Analyzer (SPAN)
- Enhanced Switched Port Analyzer (ESPAN)
- Port snooping and connection steering
- Text-based command-line interface based on the familiar Catalyst 5000 series interface
- Standard Cisco IOS security capabilities: passwords and TACACS+
- Telnet, Trivial File Transfer Protocol (TFTP), BOOTP for management access

- *EtherChannel®*
  - Fast EtherChannel: All 10/100 Mbps ports
  - Gigabit EtherChannel: All 1000 Mbps ports

- *Y2K*
  - Y2 K compliant : Yes

- *Memory Specifications*
  - Buffering:8 MB (Shared)
  - NVRAM:512 KB
  - FLASH:12 MB
  - SDRAM:64 MB

- *Supervisor Engine Module*
  - System status: Green (operational)/Red (faulty)
  - Switch utilization load: 1- to 100-percent aggregate switching usage
  - Console (DB-25 female)
  - Reset (switch recessed protected)
  - 10BaseT management (RJ-45 female) data terminal equipment (DTE): Green (good)/ orange (disabled)/off (not connected)

- *48-Port 10/100 Ethernet Module*
  - 48 10/100 Ethernet ports, RJ-45 connectors
    - Status: green (operational)/red (faulty)
    - Link: green (operational)/red (faulty)

- *32-Port 10/100 Ethernet Plus 2-Port Gigabit Ethernet Module*
  - Status: green (operational)/red (faulty)
  - Link: green (operational)/red (faulty)

- ***6-Port Gigabit Ethernet Module***
  - 6 gigabit Ethernet ports with GBIC interfaces
    - Status: green (operational)/red (faulty)
    - Link: green (operational)/red (faulty)

- ***18-Port Gigabit Ethernet Module***
  - 18 gigabit Ethernet ports with GBIC interfaces
    - Status: green (operational)/red (faulty)
    - Link: green (operational)/red (faulty)

- ***Power Supply Indicators and Interfaces***
  - Fan cooling: integrated in hot-insertion/hot-extraction unit
  - GOOD: green (good)
  - FAIL: red (faulty)
  - SNMP MIB supported

- ***Chassis Physical Specifications***
  - Dimensions (H x W x D): 10.5 x 17.25 x 12 in.
  - 6 rack units (RU) high
  - Minimum weight: 27.5 lb. (12 kg)
  - Maximum weight: 40 lb. (18 kg)
  - Mounting: 19-in. rack-compatible (rack and cable guide hardware included)

- ***Power Requirements***
  - Input current:
    - 6.0A 0A max. @ 100VAC 60Hz
    - 3.0A 0A max. @ 200VAC 50Hz
  - KVA rating: 0.58 KVA
  - Output power: 400 watts per power supply
  - Heat dissipation: 530 watts (1800 BTUs per hour)

- ***Environmental Conditions***

  - Operating temperature: 32 to 104°F (0 to 40°C)
  - Storage temperature: -40 to 167°F (-40 to 75°C)
  - Relative humidity: 10 to 90%, noncondensing
  - Operating altitude: -60 to 4000m

- *Safety Certifications*

  - UL 1950
  - EN 60950
  - CSA-C22.2 no 950
  - IEC 950

- ***Electromagnetic Emissions Certifications***

  - FCC 15J Class A
  - VCCI Class B
  - CE Marking
  - EN 55022 Class B
  - CISPR 22 Class B

Ordering Information	
Item	***Product Code***
Catalyst 4000 – Base Configuration	
Catalyst 4003 Chassis (3-slot), including Supervisor module, (1) AC PSU, and a Fan Tray	WS-C4003-S1
Catalyst 4000 Dual AC Power Supply Option for 4003	WS-X4008/2
Catalyst 4000 AC Power Supply (Spare) for 4003	WS-X4008=

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Item	*Product Code*
Catalyst 4000 Modules (4000 only)	
Catalyst 4000 Supervisor. 1, Console (DB-25) & Mgt.(RJ-45) (Spare)	WS-X4012=
Catalyst 4000 10/100 Auto Module, 48-Ports (RJ-45)	WS-X4148-RJ
Catalyst 4000 E/FE/GE Module,2- GE(GBIC), 32-10/100 (RJ-45)	WS-X4232-GB-RJ
Catalyst 4000 Gigabit Ethernet Module, 6 Ports (GBIC)	WS-X4306-GB
GBIC Modules (order 1 per Gigabit port) (4003 and 4912)	
1000BASE-SX "Short Wavelength" GBIC (Multimode only)	WS-G5484
1000BASE-LX/LH "long haul" GBIC (singlemode or multimode)	WS-G5486

Catalyst 4912G Overview

The Catalyst 4912G is a 12-port dedicated Gigabit Ethernet switch featuring high performance layer 2 switching and intelligent IOS network services for high-speed network concentration. The Catalyst 4912G is the flagship product of the new Catalyst 4900 Series, which delivers fixed configuration enterprise platforms providing cost-effective, high performance solutions for Gigabit networking. The Catalyst 4912G switch provides an advanced enterprise switching solution delivering low-cost, high-density gigabit aggregation with modular GigaBit Interface Converter (GBIC) modular protection. The Catalyst 4912G switch provides intelligent IOS network services, capable of enhancing LAN scalability, multicasting, security, management and QoS. The dedicated gigabit Catalyst 4912G leverages the same feature set with identical software code base and the same enterprise functionality as the Catalyst 5500 Series, delivering a consistent end-to-end solution.

The Catalyst 4000 Series benefits include:

- Powerful wire-speed performance with 24 Gbps of dedicated bandwidth for non-blocking Gigabit Ethernet concentration
- Consistent and mature Catalyst 5000 Series software compatibility
- Future-proof bandwidth protection with broad Gigabit EtherChannel availability
- GBIC flexibility on fiber port-interfaces covering a wide range of cabling distances
- Redundant, hot swappable external power supply (option) and other fault tolerant features

The Catalyst 4900 Series fixed configuration gigabit solutions extend and advance the rich Ethernet heritage pioneered by the popular Catalyst 2900 10/100 switches. The Catalyst 4912G leverages the powerful hardware switching fabric (ASICs) of the modular Catalyst 4000 Series switches, plus offers the low entry-cost benefit of a fixed configuration form factor. The Catalyst 4912G broadens Cisco's Gigabit product offering, underscoring a continued investment in expanding the scope of Gigabit Ethernet solutions, and further reduces the price-per-port of leading Gigabit solutions.

Cisco's Catalyst solution continues to become even stronger, providing more breadth and depth of switching solutions for your entire network needs.

Introducing the Catalyst 4912G Gigabit Aggregator

Dedicated 12-port 1000 Mbps Gigabit Ethernet for Non-Blocking High-Speed Switching

The Catalyst 4912G is a fixed configuration layer 2 Ethernet switch with 12 Gigabit Ethernet ports. Designed to easily handle the most demanding network bandwidth situations, with intelligent EtherChannel that scales to 8Gbps. The Catalyst 4912G supports a high performance architecture with nonblocking 24 Gbps total capacity; over 18 Million packet per second throughput; 16,000 MAC Addresses; and 1,024 Virtual LANs (VLAN).

- ***Flexible, Full Duplex Gigabit Uplinks***

Each Catalyst 4912G comes standard with 12 Gigabit uplink ports that can be configured with a variety of different interfaces depending upon the customer's network requirements. Utilizing advanced "GBIC" (GigaBit Interface Converter) technology, customers can choose either shortwave (1000BASE-SX) or longwave (1000BASE-LX/LH) Gigabit interfaces depending on network configuration requirements. And if, in the future, the customer's Gigabit interface requirement changes, they can easily (and inexpensively) change their GBICs. (Note that GBICs are sold separately from the Catalyst 4912G.)

- ***Industry-leading Intelligent Catalyst System Software***

The Catalyst 4912G supports the full set of features found in enterprise Catalyst System Software. Not only does this ensure interoperability with other Catalyst switches (such as the Catalyst 4000/5000/6000 Series), but it provides the 4912G with the most comprehensive set of layer 2 features available in the industry. Major software feature categories supported by the 4912G include:

  - Advanced scalability (such as Gigabit EtherChannel, Dynamic VLANs, 802.1Q Trunking)
  - Bandwidth management (QoS, Protocol Filtering, Link Load Balancing)
  - Network Resiliency (UplinkFast, PortFast, Spanning Tree)
  - Security (Per Port Security, Authentication, IP Permit Lists)
  - Advanced management (embedded RMON, SNMP, CiscoView and CiscoWorks2000)

- ***Small Form Factor Break-through***

The Catalyst 4912G form factor continues the trend of power in a small package. The switch comes with a small footprint that is only 1.5 Rack Units high. The chassis is the exact same size as the popular Catalyst 2948G 10/100/1000 Mbps switch, for rack or stack deployment.

- ***Built-In Fault Tolerance***

The 4912G supports a variety of fault tolerant features including an available external redundant power supply (sold separately and compatible with the popular Catalyst 2948G switches), support of multiple load sharing trunks (Gigabit EtherChannel), multiple Spanning Trees, and fast convergence software tools like PortFast and UplinkFast. This wide range of hardware and software fault tolerant tools enable the 4912G to provide the platform resiliency and fault tolerance required in today's mission critical enterprise networkc.

- ***Comprehensive Network Management of CiscoWorks 2000***

Catalyst 4912G products are managed by Cisco's powerful CiscoWorks 2000 network management products (option). These management products are focused on both the day-to-day network operations functions such as:

- checking on device availability and configuration changes
- provisioning of VLANs across multiple devices concurrently
- the representation of layer-2 networks both physically and logically.

The Essentials product suite leverages the power of the intranet with browser-base access anywhere within the network. Network managers can walk up to any browser console, simply identify who they are via the access control interface, and immediately begin checking on the up-time of each device, the active software versions that are running the Catalyst 4912G, and print a year 2000 compliant report. For drill down real-time device status information, the network operations staff can launch Cisco's award winning CiscoView application from their fault management station and at a glance check on the health of the power supplies, line cards, and the operational status of each port.

For more sophisticated network-wide information network managers can launch the CWSI-Campus product bundle which automatically discovers the physical and logical representations of the Catalyst switch networks. This object-based discovery system offers detailed information on the location and type of each switch within the network, the type of links that connect the switches together, and displays integrity reports on the configurations between each switch. All of this information is provided graphically within the topology interface with search and location utilities. This topology interface offers a convenient launching point

for other applications within CWSI-Campus including the RMON based traffic analysis application, the network-wide user location application, and the VLAN application which displays the logical configuration and spanning tree forwarding path information

Intelligent, embedded agents in the 4912G switch include support for Cisco Discovery Protocol (CDP) - delivering network topology discovery and mapping, and Cisco's VLAN Trunking Protocol (VTP) - supporting dynamic VLANs and dynamic trunk configurations across all switches. Embedded, intelligent RMON agents on every port deliver powerful traffic monitoring and control - RMON group support include statistics, history, alarms, and events.

Enhanced Switched Port Analyzer (SPAN) functionality enables the user to mirror traffic from any single port, multiple ports, or VLAN to another Ethernet or Fast Ethernet port for analysis by a remote sniffer or RMON SwitchProbe® product. Support for local, out-of-band management is delivered through a terminal or modem attached to the EIA/TIA-232 interface; remote in-band management is available via Simple Network Management Protocol (SNMP), Telnet client, BOOTP, and Trivial File Transfer Protocol (TFTP).

Product Features

- ***Performance and Scalability for Today's Network***

The Catalyst 4912G is designed to meet all customer performance requirements and expectations, ranging from wire-speed performance on all ports simultaneously to the efficiency of load sharing trunks and flexible Gigabit Ethernet uplinks. With a 24 Gbps switch fabric capacity, the 4912G is non-blocking so even networks migrate to Gigabit Ethernet, the switch capacity will always be greater than the total bandwidth requirement of all ports. Links scale to 8 Gbps with intelligent Gigabit EtherChannel on every port.

- ***Catalyst System Software Advantages***

Building on the familiar features and interfaces of the award-winning Catalyst 5000 series switches, the Catalyst 4912G software shares the advantage of years of Catalyst 5000 Series enterprise feature development by supporting a consistent software feature-set. This is a tremendous advantage over competitive products with embryonic or immature Gigabit Ethernet feature-sets. The Catalyst 4912G provides easy plug-and-play insertion in your network, with seamless feature linkages to other Catalyst switches in the infrastructure.

- *Low Cost of Entry, Easy to Deploy*

For customers requiring up to 12 ports of 1000 Mbps Gigabit Ethernet connectivity at an affordable price, the Catalyst 4912G offers an ideal configuration of Gigabit Ethernet for concentration in a single platform. The 4912G will meet the layer 2 bandwidth needs of advanced networks and provides a very affordable 1000 Mbps switched Ethernet solution plus enterprise resiliency and management with future-proof growth protection.

- *Investment Protection for Future Growth*

The Catalyst 4912G not only meets the customer's switching needs today, but is carefully architected to meet the customer's future bandwidth requirements as well. Many customer networks currently are bandwidth constrained from increasing browser-based application traffic over 100 Mbps Fast Ethernet uplinks. The Catalyst 4912G provides the next-step solution through industry standards based 1000 Mbps Gigabit Ethernet intelligent switching. Similarly, as customers need to change their Gigabit Ethernet cabling interface connection, the 4912G supports "GBIC" technology so customers can choose either shortwave (1000BASE-SX) or longwave (1000BASE-LX/LH) interfaces depending on network configuration requirements. And if, in the future, the customer's Gigabit interface requirement changes they can easily (and inexpensively) change their GBICs
On-going enhancements to the Catalyst System Software delivers one of the most important investment protection features of the Catalyst 4912G. Catalyst software is already the most comprehensive multilayer serivice solution in the industry. As new Catalyst System Software releases become available, the 4912G customer will have immediate access to the latest enhancements in critical areas like Quality of Service, Multicast, load balancing, and security.

- *Network Application Examples*

Gigabit Aggregation with Network Resilience and High Availability

As more and more PC connections to the network scale to 100 Mbps Fast Ethernet, congestion can occur in the wiring closet. The Catalyst 4912G dedicated Gigabit Ethernet switch is the ideal aggregator device in a Layer 2 distribution design providing optimal, non-blocking performance. With high-performance 24 Gbps switch fabric capacity, the Catalyst 4912G can handle the load with wire-speed performance on every port. In addition, for fast connections to the core backbone network elements, Gigabit

EtherChannel can provide up to 8 Gbps links to enhance the most demanding network situations.

The Catalyst 4912G is designed to support Gigabit Ethernet aggregation with very high availability and network resilience. The switch supports an external, redundant power supply, redundant load sharing trunks, and multiple Spanning Trees. In addition, the Catalyst 4912G supports fast convergence tools like PortFast and UplinkFast in case of physical link failures outside the switch. UplinkFast enables deterministic spanning tree uplink convergence in less than 5 seconds and PortFast enables the protection of spanning tree with no convergence delay at power-up.

The Catalyst 4912G will meet the need for additional bandwidth, and compliment this with intelligent services for superior resiliency, scalability, network management and QOS.

- ***Server Farm Gigabit Ethernet Aggregator***

With the industry trending towards Gigabit Ethernet Data Centre server farms, the need for high speed connections becomes necessary to protect network infrastructures from rapidly advancing server NIC speed increases. Regardless whether your network is designed using a Client/Server or Portal model, the need for Gigabit speed connections in the Data Centre server farms to meet the requirements of browser-based networking is widespread. The Catalyst 4912G is an ideal Gigabit speed concentrator for any data centre. Providing intelligent bandwidth, this switch is ready to efficiently enhance the multicasting, multimedia and data convergence needs of large and small server farms. High speed interconnects to the Core backbone are enhanced with EtherChannel links providing load-balancing, fault-detecting, failure recovering connections based on industry standard interfaces (IEEE 802.3z) and protocols (IEEE 802.1D).

Summary

The Catalyst 4912G is a cost-effective, high performance, feature-rich dedicated Gigabit Ethernet switch ideally suited for customers requiring layer 2 switching for up to 12-1000 Mbps connections, and links that scale to 8 Gbps. This new Catalyst has a non-blocking 24 Gbps architecture enabling all ports to operate simultaneously at wire speed. All 12 Gigabit uplinks support standard "GBIC" technology enabling the customer the

modular flexibility to select and change Gigabit interfaces in the 4912G quickly, easily and inexpensively. All interfaces scale intelligently with EtherChannel support.

The 4912G features a dedicated configuration of 12 modular Gigabit Ethernet uplink ports. Fully integrated into the Catalyst family of switches, the 4912G uses the same Catalyst system software as the industry-leading Catalyst 5000/5500 platforms thereby ensuring complete interoperability with existing Catalyst switches. The combination of high port density, wire-speed performance, rich software feature-set, and affordable cost-per-port makes the Catalyst 4912G an excellent choice for high-speed network implementations.

Ordering Information

Item	*Product Code*
Catalyst 4912G Switch, fixed 12-ports switched 1000BaseX (GBIC)	WS-C4912G
1000Base-SX GBIC module	WS-G5484
1000Base-LX/LH GBIC module	WS-G5486
600W Redundent AC Power System	PWR600-AC-RPS-CAB (with DC Power Cables) PWR500-AC-RPS-NCAB (without DC Power Cables)
Catalyst 4912G RMON Agent License	WS-C4912G-EMS-LIC
Catalyst 4912G Rack Mount Kit (spare)	WS-X4912G-RACK=