

EOL: Catalyst 2926 Series — Multilayer Switches

Product Overview

The Catalyst 2926 Series delivers award-winning Catalyst 5000 family performance in a compact chassis. The Catalyst 2926 is a fixed-configuration, high-density, 10/100 autosensing Catalyst family member that uses the same architecture and software as the Catalyst 5000. The switch can deliver more than one million packets-per-second (pps) throughput across a 1.2-Gbps media-independent backplane that supports Ethernet and Fast Ethernet.

The Catalyst 2926 Series provides Layer 2 switching with the Catalyst 2926T and Catalyst 2926F as well as high performance multilayer switching with the Catalyst 2926GS and Catalyst 2926GL. All models include network management capability. The Catalyst 2926T and Catalyst 2926F offer two full-duplex Fast Ethernet uplinks for redundant connections to switches, routers, and servers. Users can choose dual 100BaseTX uplink ports and two Media Independent Interface (MII) ports (model WS-C2926T), or dual multimode 100BaseFX uplink ports (model WS-C2926F). Further, with Cisco's Fast EtherChannel technology, the two uplink ports can be configured as a single 400-Mbps fault-tolerant connection. The Catalyst 2926GS and GL offer Gigabit Ethernet uplinks for redundant connections to switches, routers, and servers. Users can choose dual 1000BaseSX uplink ports (model WS-C2926GS), or dual 1000BaseLX/LH uplink ports (model WS-C2926GL). These Gigabit Ethernet uplink ports support industry-standard 802.1Q Virtual LAN (VLAN) trunking for flexible device interconnections. Further, with Cisco's Fast EtherChannel technology, the 10/100 autosensing ports can be configured as 400 or 800 Mbps fault-tolerant connections.

The system also contains 24 ports of 10/100 autosensing switched Ethernet and Fast Ethernet, enabling flexible solutions for a variety of applications. High-density switched Ethernet and Fast Ethernet dual protocol ports meet today's wiring closet requirements. Fast Ethernet solutions for workgroups and server farms can easily be addressed by these 10/100BaseTX switched connections.

All Catalyst 2926 Series switches fit into a standard 19-in. rack, and all system components are accessible from the same side of the chassis. The chassis includes dual load-sharing, redundant power supplies. A single supply can support the entire switch, making the system highly reliable.

The Catalyst 2926 complements the entire Cisco Catalyst switch offering, allowing users to benefit from common Cisco IOS network services software features and common network management user interfaces (starting with CiscoWorks for Switched Internetworks [CWSI] 2.0).

Table 28-2: Port Capabilities

| Feature | Number of Interfaces Supported Catalyst 2926T and Catalyst 2926F | Number of Interfaces Supported Catalyst 2926GS and Catalyst 2926GL |
|------------------------------------|--|--|
| 10/100 Autosensing | 24 | 24 |
| Fast EtherChannel Technology | 2 | 24 |
| 100-Mbps Fast Ethernet Uplinks | 2 | - |
| 1000-Mbps Gigabit Ethernet Uplinks | - | 2 |
| Inter-Switch Link (ISL) Trunking | 2 | 26 |
| IEEE 802.3u | 24 | 24 |
| IEEE 802.1Q Trunking | - | 26 |
| IEEE 802.1p | - | 26 |
| IEEE 802.3x (full duplex) | - | 26 |
| IEEE 802.3x (pause) | - | 2 |

Key Features and Benefits

Features of the Catalyst 2926 switch include:

- High performance switch fabric capable of delivering over one million pps
- Users can configure individual ports with a higher-priority level to accommodate time-sensitive applications such as voice and video
- Maintains up to 16,000 active Media Access Control (MAC) addresses in the bridge lookup table
- Separate from the data path, a common management path delivers configuration information for all modules, gathers performance information, and updates operational software information
- Supports 1000 virtual LANs (VLANs) network wide between multiple Catalyst family systems and Cisco routers via ISL (Catalyst 2926T/F) or ISL and 802.1Q (Catalyst 2926GS/GL)
- Supports Fast EtherChannel (FEC) Uplink bundling for channel connections up to 400 Mbps (Catalyst 2926T/F) or up to 800Mbps (Catalyst 2926GS/GL) between switches, routers and servers. Delivering optimal backbone and data center uplinks with automatic load balancing and fast cut-over on port failure that is easy to configure and manage
- Superior traffic management — Remote Monitoring (RMON) statistics provide visibility of network activity: statistics, history, events, and alarms groups
- Enhanced Switched Port Analyzer (SPAN) functionality enables the user to mirror traffic on any port or VLAN to another Ethernet or Fast Ethernet port for analysis by a sniffer or RMON SwitchProbe device
- Support for load balancing using VLANs and spanning-tree on multiple parallel Fast Ethernet ISL trunks to increase capacity and fault tolerance between switches; Dynamic ISL Protocol (DISL) synchronizes configuration of two interconnected Fast Ethernet interfaces into ISL trunks; Fast EtherChannel technology enables aggregation of two full-duplex Fast Ethernet links for high-capacity backbone connections
- Complete VLAN solution that is easy to configure and manage: fully integrated support for spanning tree per VLAN, 802.1Q (Catalyst 2926GS/GL), ISL, DISL, Cisco Discovery Protocol (CDP), VLAN Trunk Protocol (VTP), and VMPS Dynamic VLANs
- Support for local out-of-band management through a terminal or modem attached to the EIA/TIA-232 interface; remote in-band management through Simple Network Management Protocol (SNMP), Telnet client, BOOTP, and Trivial File Transfer Protocol (TFTP)
- Full SNMP management (gets and sets for Ethernet Management Information Base [MIB], bridge MIB, MIB II, VTP, and system extensions)
- Supports nonvolatile random-access memory (NVRAM) for storing configuration data and software images
- Managed with CiscoWorks integrated, standards-based management, including CiscoView, TrafficDirector, and VlanDirector
- Port security based on MAC address

Specifications

Hardware

Standard Network Protocols

- Ethernet: IEEE 802.3, 10BaseT
- Fast Ethernet: IEEE 802.3u, 100BaseTX, 100BaseFX
- Gigabit Ethernet IEEE 802.3z, 1000BaseBaseSX, 1000BaseLX/LH (Catalyst 2926GS/GL)
- Gigabit Ethernet: 802.3x (Catalyst 2926GS/GL)

Physical Specifications

- Dimensions (H x W x D): 5.75 x 17 x 18 in. (14.6 x 43.2 x 45.7 cm)
- Weight: 35 lb (15.9 kg) WS-C2926T/F; 40 lb (18.14 kg) WS-C2926GS/GL
- Mounting: 19-in. rack-compatible (rack and cable guide hardware included)

Power Requirements (one power supply)

- 3.0A @ 100 — 240 VAC
- Power consumption: 260 watts (0.3 KVA)
- 50/60 Hz
- Power factor correction included
- Heat Dissipation: 888 BTU/hr

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

Safety Certifications

- UL 1950
- EN 60950
- CSA-C22.2 No. 950 — 93
- IEC 950

Electromagnetic Emissions Certifications

- FCC Class A (Part 15)
- CE mark
- EN 55022 Class B
- VCCI Class 2
- CISPR 22 Class B (Catalyst 2926GS/GL)

Memory

- Flash memory:
 - 4 MB (Catalyst 2926T/F)
 - 8MB (Catalyst 2926GS/GL)
- RAM:
 - 20 MB (Catalyst 2926T/F)
 - 32MB (Catalyst 2926GS/GL)
- NVRAM:
 - 256 KB (Catalyst 2926T/F)
 - 512 KB (Catalyst 2926GS/GL)

Processor

- Network management processor:
 - 25-MHz Motorola 68EC040 (Catalyst 2926T/F)
 - 150-MHz R4700 RISC (Catalyst 2926GS/GL)
- Frame processing
- Transparent bridging (802.1d)

Network Management

-
- CDP
 - VTP
 - SNMP agent V.1 (RFCs 1155 to 1157)
 - Cisco workgroup MIB
 - Ethernet MIB (RFC 1643)
 - SNMP MIB II (RFC 1213)
 - Interface table (RFC 1573)
 - Bridge MIB (RFC 1493)

Maximum Station-to-Station Cabling Distance

- 100BaseTX Fast Ethernet 328 ft (100 m)
- 100BaseFX: 62.5/125-micron multimode fiber: 1312 ft (400 m) half duplex; 1.2 miles (2 km) full duplex
- 1000BaseSX 220m to 260m (depending on fiber cable modal bandwidth)
- 1000BaseLX/LH 550m multimode, 10-km single mode

System Indicators and Interfaces

- System status: Green (operational)/red (major fault)/orange (minor fault)
- Switch load: 1 to 100% switch backplane usage
- Link good: Green (good)/orange (disabled)/off (not connected)
- 100-Mbps Fast Ethernet: Green (100 Mbps) - Catalyst 2926T/F
- 1000-Mbps Gigabit Ethernet: Green (1000 Mbps) - Catalyst 2926GS/GL
- PCMCIA Slot 0: Green (Flash present) - Catalyst 2926GS/GL
- PCMCIA Slot 1: Green (Flash present) - Catalyst 2926GS/GL
- Power supply status: Green (on)/red (fault)
- Fan status: Green (on)/red (fault)
- Console: DB-25 (female) - Catalyst 2926T/F
- Console: RJ-45 (female) - Catalyst 2926GS/GL
- 100BaseTX: RJ-45 (female), MII (female) for external transceiver - Catalyst 2926T
- 100BaseFX: SC (female) - Catalyst 2926F
- 1000BaseSX SC (female) - Catalyst 2926GS/GL
- 1000BaseLX/LH SC (female) - Catalyst 2926GS/GL

10/100 Autosensing Port Indicators and Interfaces

- LK (Link): Green (good)/orange (disabled)/off (not connected)
- SP (speed): Green (100Mbps)/off (10 Mbps)
- 10/100 BaseTX: RJ-45 (female)
- STATUS: Green (operational)/red (major fault)/orange (minor fault)

Software

For software specification information, access Cisco Connection Online at <http://www.cisco.com>.

Ordering Information

Product and Part Numbers

Part Numbers for the Catalyst 2926

| Part Description | Part Number |
|--|-------------|
| Catalyst 2926T Fixed Switch, 24-10/100 RJ-45, 2 100BaseTX | WS-C2926T |
| Catalyst 2926F Fixed Switch, 24-10/100 RJ-45, 2 100BaseFX | WS-C2926F |
| Catalyst 2926GS Fixed Switch, 24-10/100 RJ-45, 2 1000BaseSX | WS-C2926GS |
| Catalyst 2926GL Fixed Switch, 24-10/100 RJ-45, 2 1000BaseLX/LH | WS-C2926GL |

