Bluetech WS-C2960X-48TS-L

Bluetech User Manual for Cisco WS-C2960X-48TS-L Catalyst 2960-X 48-Port Gigabit Ethernet Switch

Model: WS-C2960X-48TS-L

Introduction

This manual provides essential information for the installation, operation, and maintenance of the Bluetech Cisco WS-C2960X-48TS-L Catalyst 2960-X 48-Port Gigabit Ethernet Switch. Please read this manual thoroughly before using the device to ensure proper functionality and safety.
The Cisco Catalyst 2960-X Series Switches are fixed-configuration, stackable Gigabit Ethernet switches that provide enterprise-class access for campus and branch applications. They operate on Cisco IOS® Software and support simple device management as well as network management.

Safety Information

- Ensure the device is installed in a well-ventilated area to prevent overheating.
- Use only the power supply provided or specified by the manufacturer.
- Do not expose the switch to water or excessive humidity.
- Avoid placing heavy objects on top of the switch.
- Disconnect power before performing any maintenance or cleaning.

Package Contents

Verify that your package contains the following items:

- Cisco WS-C2960X-48TS-L Catalyst 2960-X 48-Port Gigabit Ethernet Switch
- Power Cord
- Rack-mount Kit (optional, may be sold separately)
- Console Cable (RJ-45 to DB-9)

- Documentation (Quick Start Guide, Safety Information)

Setup

1. Physical Installation

Place the switch on a stable, flat surface or mount it in a standard 19-inch equipment rack. Ensure adequate clearance for airflow around the ventilation openings.

Image: Front panel of the Cisco WS-C2960X-48TS-L switch. This image displays the 48 Gigabit Ethernet ports and the 4 SFP uplink ports, which are used for high-speed fiber connections.

2. Connecting Power

Connect the provided power cord to the AC power connector on the rear panel of the switch and then to a grounded electrical outlet.

3. Connecting Network Cables

- **Ethernet Ports:** Connect standard RJ-45 Ethernet cables from your network devices (computers, servers, other switches) to the 48 Gigabit Ethernet ports on the front panel.
- **SFP Uplink Ports:** For high-speed fiber connections, insert compatible SFP transceivers into the 4 SFP uplink ports and connect fiber optic cables.

4. Initial Configuration Access

To access the switch for initial configuration, connect a console cable (RJ-45 to DB-9) from the console port on the switch to the serial port of a computer. Use a terminal emulation program (e.g., PuTTY, Tera Term) with the following settings:

- Baud Rate: 9600
- Data Bits: 8
- Parity: None

- Stop Bits: 1
- Flow Control: None

Alternatively, the switch may support out-of-band management via a dedicated Ethernet management interface.

Operating

1. Basic Network Configuration

After initial access, configure essential network parameters:

- **IP Address:** Assign an IP address and subnet mask to the switch for network management.
- **Default Gateway:** Configure a default gateway if the switch needs to communicate with devices outside its local subnet.
- **VLANs:** Create and assign Virtual Local Area Networks (VLANs) to segment network traffic and enhance security.
- **Port Configuration:** Configure individual port settings such as speed, duplex mode, and access/trunk mode.

2. Monitoring Status

The switch features LED indicators on the front panel to provide real-time status information:

- **System LED:** Indicates overall system health (e.g., green for normal operation, amber for warning).
- **Port Status LEDs:** Indicate link status and activity for each Ethernet port.
- **Mode Button LEDs:** Show the currently selected port mode (e.g., Speed, Duplex, PoE).

3. Advanced Features

The switch supports various advanced features for network control and security:

- **IP Unicast Routing Protocols:** Supports protocols for efficient data routing.
- **Policy-Based Routing:** Allows for flexible routing decisions based on defined policies.
- **MAC-based VLAN Assignment:** Enhances security by assigning VLANs based on device MAC addresses.
- **802.1X Functionality:** Provides port-based network access control.
- **Private VLANs:** Isolates ports within a VLAN for enhanced security.
- **Redundancy Features:** Includes Cross-stack EtherChannel, Flexlink, 802.1s/w protocols, and Hot Standby Router Protocol for network resilience.

Maintenance

1. Firmware Updates

Regularly check the manufacturer's website for firmware updates. Applying updates can improve performance, add new features, and address security vulnerabilities. Follow the specific instructions provided with each firmware release.

2. Cleaning

Periodically clean the exterior of the switch with a soft, dry cloth. Ensure ventilation openings are free from

dust and debris to maintain proper airflow and prevent overheating. Do not use liquid cleaners or aerosols directly on the device.

3. Regular Checks

Perform routine checks of cable connections, LED indicators, and system logs to identify and address potential issues proactively.

Troubleshooting

1. No Power

- Verify the power cord is securely connected to both the switch and the electrical outlet.
- Check if the power outlet is functional by plugging in another device.
- Ensure the power switch (if present) is in the ON position.

2. No Network Connectivity

- Check the Ethernet cable connections for the affected device and the switch port.
- Observe the port status LEDs; a solid green light indicates a valid link, while a blinking light indicates activity. No light suggests a cable issue or a disabled port.
- Verify IP address, subnet mask, and gateway settings on the connected device and the switch.
- Ensure the correct VLAN is assigned to the port if VLANs are in use.

3. Slow Network Performance

- Check for excessive network traffic or broadcast storms.
- Verify that port speed and duplex settings are correctly configured and match the connected device.
- Inspect cables for damage or degradation.

Specifications

Feature	Detail
Brand	Bluetech
Model Number	WS-C2960X-48TS-L
Number of Ports	48 Gigabit Ethernet ports, 4 SFP uplink ports
Data Transfer Rate	1000 Megabits Per Second
Interface Type	SFP
Compatible Devices	Desktop (and other network devices)
Product Dimensions	1 x 1 x 1 inches
Item Weight	2 pounds
Case Material	Plastic
UPC	779177280026, 779177280033

Warranty and Support

Warranty Information

This product may come with a manufacturer's warranty. Please refer to the documentation included with your purchase or contact Bluetech customer support for specific warranty terms and conditions. For refurbished units, specific warranty terms may apply, such as a 1-Year Warranty from the seller.

Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact Bluetech customer support. Refer to the contact information provided with your product or visit the official Bluetech website.
For questions or issues regarding specific purchases, you may also contact the seller directly. For example, Knowledge Computers, Inc. can be reached at 1-800-967-6607 for their refurbished units.
Protection plans may also be available for extended coverage. For example, a 4-Year Protection Plan or a Complete Protect plan covering multiple purchases.