Cisco OptoStar II

Intelligent Communications Interface Module (ICIM)

Installation and Operation Guide

For Your Safety

Explanation of Warning and Caution Icons

Avoid personal injury and product damage! Do not proceed beyond any symbol until you fully understand the indicated conditions.

The following warning and caution icons alert you to important information about the safe operation of this product:

This symbol indicates important operating or maintenance instructions.

You may find this symbol affixed to the product. This symbol indicates a live terminal where a dangerous voltage may be present; the tip of the flash points to the terminal device.

You may find this symbol affixed to the product. This symbol indicates a protective ground terminal.

You may find this symbol affixed to the product. This symbol indicates a chassis terminal (normally used for equipotential bonding).

You may find this symbol affixed to the product. This symbol warns of a potentially hot surface.

You may find this symbol affixed to the product and in this document. This symbol indicates an infrared laser that transmits intensity-modulated light and emits invisible laser radiation or an LED that transmits intensity-modulated light.

Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

Notices

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Important Safety Instructions

Read and Retain Instructions

Carefully read all safety and operating instructions before operating this equipment, and retain them for future reference.

Follow Instructions and Heed Warnings

Follow all operating instructions. Pay attention to all warnings and cautions in the operating instructions, as well as those that are affixed to this equipment.

Terminology

The terms defined below are used in this document. The definitions given are based on those found in safety standards.

Service Personnel-The term service personnel applies to trained and qualified individuals who are allowed to install, replace, or service electrical equipment. The service personnel are expected to use their experience and technical skills to avoid possible injury to themselves and others due to hazards that exist in service and restricted areas.

User and Operator-The terms user and operator apply to persons other than service personnel.

Ground(ing) and Earth(ing)-The terms ground(ing) and earth(ing) are synonymous. This document uses ground(ing) for clarity, but it can be interpreted as having the same meaning as earth(ing).

Electric Shock Hazard

This equipment meets applicable safety standards. Refer to this equipment's data sheet for details about regulatory compliance approvals.

> ⚠ **WARNING:**
>
> **Avoid electric shock! Opening or removing the equipment cover may expose you to dangerous voltages. Refer all servicing to qualified service personnel only.**

Electric shock can cause personal injury or even death. Avoid direct contact with dangerous voltages at all times.

Know the following safety warnings and guidelines:
- Only qualified service personnel are allowed to perform equipment installation or replacement.
- Only qualified service personnel are allowed to remove equipment covers and access any of the components inside the chassis.

Important Safety Instructions, Continued

Grounding

- Do not violate the protective grounding by using an extension cable, power cable, or autotransformer without a protective ground conductor.
- Take care to maintain the protective grounding of this equipment during service or repair and to re-establish the protective grounding before putting this equipment back into operation.

Installation Site

When selecting the installation site, comply with the following:

- **Protective grounding** - The protective ground lead of the building's electrical installation should comply with national and local requirements.
- **Environment Condition** - The installation site should be dry, clean, and ventilated. Do not use this equipment where it could be at risk of contact with water. Ensure that this equipment is operated in an environment that meets the requirements as stated in this equipment's technical specifications, which may be found on this equipment's data sheet.

Installation Requirements

> ⚠ **WARNING:**
>
> **Allow only qualified service personnel to install this equipment. The installation must conform to all local codes and regulations.**

Important Safety Instructions, Continued

Equipment Placement

> ⚠️ **WARNING:**
>
> **Avoid personal injury and damage to this equipment. An unstable mounting surface may cause this equipment failure.**

To protect against equipment damage or injury to personnel, comply with the following:

- Install this equipment in a restricted access location.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.
- Place this equipment close enough to a mains AC outlet to accommodate the length of this equipment's power cord.
- Route all power cords so that people cannot walk on, place objects on, or lean objects against them. This may pinch or damage the power cords. Pay particular attention to power cords at plugs, outlets, and the points where the power cords exit this equipment.
- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with this equipment.
- Make sure the mounting surface or rack is stable and can support the size and weight of this equipment.
- The mounting surface or rack should be appropriately anchored according to manufacturer's specifications. Ensure this equipment is securely fastened to the mounting surface or rack where necessary to protect against damage due to any disturbance and subsequent fall.

Ventilation

This equipment has openings for ventilation to protect it from overheating. To ensure equipment reliability and safe operation, do not block or cover any of the ventilation openings. Install the equipment in accordance with the manufacturer's instructions.

Rack Mounting Safety Precautions

Mechanical Loading

Make sure that the rack is placed on a stable surface. If the rack has stabilizing devices, install these stabilizing devices before mounting any equipment in the rack.

> ⚠️ **WARNING:**
>
> **Avoid personal injury and damage to this equipment. Mounting this equipment in the rack should be such that a hazardous condition is not caused due to uneven mechanical loading.**

Important Safety Instructions, Continued

Reduced Airflow

When mounting this equipment in the rack, do not obstruct the cooling airflow through the rack. Be sure to mount the blanking plates to cover unused rack space. Additional components such as combiners and net strips should be mounted at the back of the rack, so that the free airflow is not restricted.

> ⚠️ **CAUTION:**
>
> **Installation of this equipment in a rack should be such that the amount of airflow required for safe operation of this equipment is not compromised.**

Elevated Operating Ambient Temperature

Only install this equipment in a humidity- and temperature-controlled environment that meets the requirements given in this equipment's technical specifications.

> ⚠️ **CAUTION:**
>
> **If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install this equipment in an environment compatible with the manufacturer's maximum rated ambient temperature.**

Handling Precautions

When moving a cart that contains this equipment, check for any of the following possible hazards:

> ⚠️ **WARNING:**
>
> **Avoid personal injury and damage to this equipment! Move any equipment and cart combination with care. Quick stops, excessive force, and uneven surfaces may cause this equipment and cart to overturn.**

- Use caution when moving this equipment/cart combination to avoid injury from tip-over.
- If the cart does not move easily, this condition may indicate obstructions or cables that may need to be disconnected before moving this equipment to another location.
- Avoid quick stops and starts when moving the cart.
- Check for uneven floor surfaces such as cracks or cables and cords.

Grounding

This section provides instructions for verifying that the equipment is properly grounded.

Important Safety Instructions, Continued

Safety Plugs (USA Only)

This equipment is equipped with either a 3-terminal (grounding-type) safety plug or a 2-terminal (polarized) safety plug. The wide blade or the third terminal is provided for safety. Do not defeat the safety purpose of the grounding-type or polarized safety plug.

To properly ground this equipment, follow these safety guidelines:

- **Grounding-Type Plug -** For a 3-terminal plug (one terminal on this plug is a protective grounding pin), insert the plug into a grounded mains, 3-terminal outlet.

  Note: This plug fits only one way. If this plug cannot be fully inserted into the outlet, contact an electrician to replace the obsolete 3-terminal outlet.

- **Polarized Plug -** For a 2-terminal plug (a polarized plug with one wide blade and one narrow blade), insert the plug into a polarized mains, 2-terminal outlet in which one socket is wider than the other.

  Note: If this plug cannot be fully inserted into the outlet, try reversing the plug. If the plug still fails to fit, contact an electrician to replace the obsolete 2-terminal outlet.

Grounding Terminal

If this equipment is equipped with an external grounding terminal, attach one end of an 18-gauge wire (or larger) to the grounding terminal; then, attach the other end of the wire to a ground, such as a grounded equipment rack.

Safety Plugs (European Union)

- **Class I Mains Powered Equipment -** Provided with a 3-terminal AC inlet and requires connection to a 3-terminal mains supply outlet via a 3-terminal power cord for proper connection to the protective ground.

  Note: The equipotential bonding terminal provided on some equipment is not designed to function as a protective ground connection.

- **Class II Mains Powered Equipment -** Provided with a 2-terminal AC inlet that may be connected by a 2-terminal power cord to the mains supply outlet. No connection to the protective ground is required as this class of equipment is provided with double or reinforced and/or supplementary insulation in addition to the basic insulation provided in Class I equipment.

  Note: Class II equipment, which is subject to EN 50083-1, is provided with a chassis mounted equipotential bonding terminal. See the section titled Equipotential Bonding for connection instructions.

Equipotential Bonding

If this equipment is equipped with an external chassis terminal marked with the IEC 60417-5020 chassis icon (⏚), the installer should refer to CENELEC standard EN 50083-1 or IEC standard IEC 60728-11 for correct equipotential bonding connection instructions.

Important Safety Instructions, Continued

AC Power

Important: If this equipment is a Class I equipment, it must be grounded.

- If this equipment plugs into an outlet, the outlet must be near this equipment, and must be easily accessible.
- Connect this equipment only to the power sources that are identified on the equipment-rating label normally located close to the power inlet connector(s).
- This equipment may have two power sources. Be sure to disconnect all power sources before working on this equipment.
- If this equipment does not have a main power switch, the power cord connector serves as the disconnect device.
- Always pull on the plug or the connector to disconnect a cable. Never pull on the cable itself.
- Unplug this equipment when unused for long periods of time.

Connection to -48 V DC/-60 V DC Power Sources

If this equipment is DC-powered, refer to the specific installation instructions in this manual or in companion manuals in this series for information on connecting this equipment to nominal -48 V DC/-60 V DC power sources.

Circuit Overload

Know the effects of circuit overloading before connecting this equipment to the power supply.

> ⚠️ **CAUTION:**
>
> **Consider the connection of this equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring. Refer to the information on the equipment-rating label when addressing this concern.**

General Servicing Precautions

> ⚠️ **WARNING:**
>
> **Avoid electric shock! Opening or removing the equipment cover may expose you to dangerous voltages. Refer all servicing to qualified service personnel only.**

> ⚠️ **CAUTION:**
>
> **These servicing precautions are for the guidance of qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.**

Important Safety Instructions, Continued

Be aware of the following general precautions and guidelines:

- **Servicing -** Servicing is required when this equipment has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into this equipment, this equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **Wristwatch and Jewelry** - For personal safety and to avoid damage of this equipment during service and repair, do not wear electrically conducting objects such as a wristwatch or jewelry.
- **Lightning** - Do not work on this equipment, or connect or disconnect cables, during periods of lightning.
- **Labels** - Do not remove any warning labels. Replace damaged or illegible warning labels with new ones.
- **Covers** - Do not open the cover of this equipment and attempt service unless instructed to do so in the instructions. Refer all servicing to qualified service personnel only.
- **Moisture** - Do not allow moisture to enter this equipment.
- **Cleaning -** Use a damp cloth for cleaning.
- **Safety Checks -** After service, assemble this equipment and perform safety checks to ensure it is safe to use before putting it back into operation.

Electrostatic Discharge

Electrostatic discharge (ESD) results from the static electricity buildup on the human body and other objects. This static discharge can degrade components and cause failures.

Take the following precautions against electrostatic discharge:

- Use an anti-static bench mat and a wrist strap or ankle strap designed to safely ground ESD potentials through a resistive element.
- Keep components in their anti-static packaging until installed.
- Avoid touching electronic components when installing a module.

Fuse Replacement

To replace a fuse, comply with the following:

- Disconnect the power before changing fuses.
- Identify and clear the condition that caused the original fuse failure.
- Always use a fuse of the correct type and rating. The correct type and rating are indicated on this equipment.

Important Safety Instructions, Continued

Batteries

This product may contain batteries. Special instructions apply regarding the safe use and disposal of batteries:

Safety

- Insert batteries correctly. There may be a risk of explosion if the batteries are incorrectly inserted.
- Do not attempt to recharge 'disposable' or 'non-reusable' batteries.
- Please follow instructions provided for charging 'rechargeable' batteries.
- Replace batteries with the same or equivalent type recommended by manufacturer.
- Do not expose batteries to temperatures above 100°C (212°F).

Disposal

- The batteries may contain substances that could be harmful to the environment
- Recycle or dispose of batteries in accordance with the battery manufacturer's instructions and local/national disposal and recycling regulations.

Li-ion   廢電池請回收

- The batteries may contain perchlorate, a known hazardous substance, so special handling and disposal of this product might be necessary. For more information about perchlorate and best management practices for perchlorate-containing substance, see www.dtsc.ca.gov/hazardouswaste/perchlorate.

Modifications

This equipment has been designed and tested to comply with applicable safety, laser safety, and EMC regulations, codes, and standards to ensure safe operation in its intended environment. Refer to this equipment's data sheet for details about regulatory compliance approvals.

Do not make modifications to this equipment. Any changes or modifications could void the user's authority to operate this equipment.

Modifications have the potential to degrade the level of protection built into this equipment, putting people and property at risk of injury or damage. Those persons making any modifications expose themselves to the penalties arising from proven non-compliance with regulatory requirements and to civil litigation for compensation in respect of consequential damages or injury.

Accessories

Use only attachments or accessories specified by the manufacturer.

Important Safety Instructions, Continued

Electromagnetic Compatibility Regulatory Requirements

This equipment meets applicable electromagnetic compatibility (EMC) regulatory requirements. Refer to this equipment's data sheet for details about regulatory compliance approvals. EMC performance is dependent upon the use of correctly shielded cables of good quality for all external connections, except the power source, when installing this equipment.

- Ensure compliance with cable/connector specifications and associated installation instructions where given elsewhere in this manual.

Otherwise, comply with the following good practices:

- Multi-conductor cables should be of single-braided, shielded type and have conductive connector bodies and backshells with cable clamps that are conductively bonded to the backshell and capable of making 360° connection to the cable shielding. Exceptions from this general rule will be clearly stated in the connector description for the excepted connector in question.
- Ethernet cables should be of single-shielded or double-shielded type.
- Coaxial cables should be of the double-braided shielded type.

Restriction of Hazardous Substances Directive (RoHS) Requirements

The equipment conforms to the restriction of hazardous substances directive in electrical and electronic equipment (RoHS) requirements.

Chapter 1 Introduction

Overview

The OptoStar II optical platform is an advanced transmission system, designed to optimize network architectures and increase reliability, scalability, and cost effectiveness.

This chapter introduces the features and structure of the OptoStar II intelligent communications interface module.

Purpose

This document provides information about the installation, configuration, operation, and troubleshooting of the OptoStar II intelligent communications interface module.

Who Should Use This Document

This document is intended for authorized service personnel who have experience working with similar equipment. The service personnel should have appropriate background and knowledge to complete the procedures described in this document.

Qualified Personnel

> ⚠ **CAUTION:**
>
> **Allow only qualified and skilled personnel to install, operate, maintain, and service this product. Otherwise, personal injury or equipment damage may occur.**

Only appropriately qualified and skilled personnel should attempt to install, operate, maintain, and service this product.

Scope

This document discusses the following topics.

- Intelligent communications interface module (ICIM) description
- Installation and configuration
- Operating Instructions
- Troubleshooting
- Customer support information

Document Version

This is the third release of this document.

Overview, Continued

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Introduction

Description

The OptoStar II intelligent communications interface module uses a standard 19-in OptoStar II chassis. The flexibility of the platform is greatly improved by the fact that a single chassis can hold both intelligent communications interface module and other OptoStar II modules. The intelligent communications interface module is always located in the left-most slot of the standard 3 RU OptoStar II Chassis. This module is used for communication between each module and the bus of the network management system, and as an alarm for system failure.
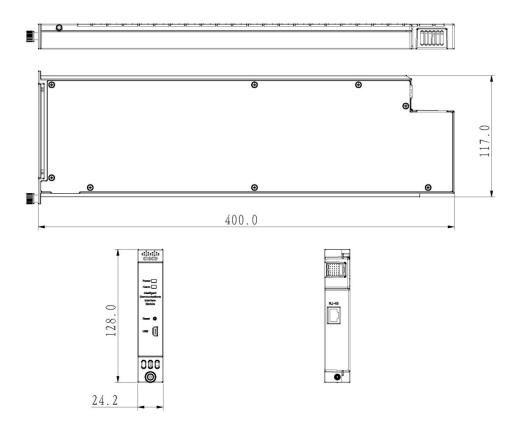
Features

- The intelligent communications interface module is used as a communication interface between each OptoStar II module and the bus of the network management system.

- Provide a timely alarm in case of system failure

- The power and data connections are accessible from the front, facilitating easy installation and maintenance

- Front Panel LED shows fan status, network connection status and communication status

- 4. 3-inch color LCD screen is available for configuring and setting parameters for the modules in other slots.

- Intelligent communications interface module (ICIM) provides various configuration and control options
  - Local monitoring and control on the ICIM LCD screen
  - Local monitoring and control with ICIM Mini-USB interface connecting to the Console on PC
  - Remote status monitoring (SNMP) with ICIM RJ-45 interface

- Firmware is upgradeable

Structure

Dimension

The dimensions of the OptoStar II intelligent communications interface module are shown below. (Unit: mm)
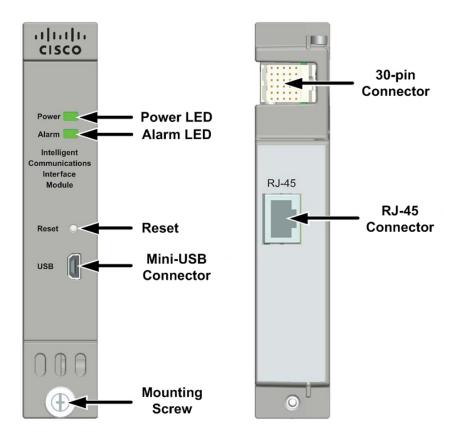

Module Parts

The following table lists the parts of the OptoStar II intelligent communications interface module.

Part	Function
Module Housing	Includes side panels, front panel, and rear panel.
Front Panel	includes LED, reset, Mini-USB interface and mounting screw
Rear Panel	Includes a 30-pin connector and a RJ-45 connector

Structure, Continued

Panel Illustration

The following illustration shows the panels of the OptoStar II intelligent communications interface module.

Structure, Continued

Panel Functions

The following table lists the functions of the front panel indicators on the OptoStar II intelligent communications interface module.

Description	Function	
Power LED	Red/Green Indicator	Blinks in red and green: when the module is starting up
		Green: normal power supply
Alarm LED	Red/Green Indicator	Green: module is in normal working condition
		Red: module is not working properly, and alarm occurs

The following table lists other functions of the OptoStar II intelligent communications interface module front panel.

Description	Function
Reset	Restore factory settings
Mini-USB Interface	Local monitoring and control by connecting to the console on PC
Mounting Screw	Mounts the module in the chassis

The following table lists the functions of the OptoStar II intelligent communications interface module rear panel.

Description	Function
30-pin Connector	Power and communication connecter of the module, and provides module ID information.
RJ-45 connector	Remote status monitoring (SNMP)

Chapter 2 Installation and Configuration

Overview

This chapter provides instructions for installing the OptoStar II intelligent communications interface module.

Qualified Personnel

Only appropriately qualified and skilled personnel should attempt to install, operate, maintain, and service this product. Otherwise, personal injury or equipment damage may occur.

In This Chapter

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Installing the Chassis	2 - 3
Installing/Removing the Modules	2 - 4

Before You Begin

Before you begin the installation procedure, make sure you have all the tools and the module ready.

Tools

The following tools and equipment are needed to install the module.

- Flat-head or round-head screws and washers
- Flat-head or Phillips-head screwdriver

Unpacking and Inspecting the Module

Please follow the steps below to unpack and inspect the module for any damage:

1. Inspect the shipping boxes for any damage;
2. Unpack all boxes and confirm that the contents are complete. Remove the module;
   Note: Items in the packaging box include:
   - One OptoStar II intelligent communications interface module (ICIM)
   - One factory test report
3. Inspect the appearance of the module for any shipping damage. In case of damage, document it and inform the shipping company and our customer support. See *Customer Support Information* (on page 5-1) for details.
4. Keep the shipping boxes and their inserts for any future shipment for upgrade or repair.
   Note: In the event that the module must be returned to the manufacturer, any shipment damage resulting from improper packaging will be the responsibility of the customer. Inspect the boxes and equipment for any damage upon receipt.

Installing the Chassis

Mount the empty chassis in the equipment rack, using flat or round head screws and washers in the four front panel corner mounting locations. This enables a secure mount of the unit on the chassis. You must use screws matching your rack.

Chassis Location in Rack

The chassis can be placed anywhere within the rack. Hot air discharged from other equipment must not be directed at the chassis front panel. Dust from the surrounding environment should not be ingested in the input airflow. The chassis can be mounted without any gap, directly above or below another chassis or other equipment that does not discharge hot air directly at the front panel of the chassis.

Operating Temperature

Make sure the unit is operated in a temperature and humidity-controlled environment. See the temperature specifications in the datasheet.
Note: The maximum operating ambient temperature is 50°C (122°F).

Long-term reliability is best obtained with consistently cool environments. Never place a unit near a heat source. Do not install a unit in areas of high humidity or where there is any chance of water or condensation dripping into or on the unit.

Verify Rack Dimensions

It is important to verify the rack dimensions to guarantee proper installation of the chassis. The minimum Telco rack dimensions needed for installation are as follows.

- The chassis weighs 6. 6 kg and can be installed into a 19-in. rack. The maximum width of the chassis is 481 mm, and the width without mounting ears is 437 mm.

Installing/Removing the Modules

To Install the Module

Connect the ICIM to the rear panel connector of the chassis. Install the module as shown in the following illustration.

1. Select Slot 1 (can only be placed in this slot).
2. Inspect all pins on the rear panel and confirm that they are not bent.
3. Hold module vertically with module front towards you.
4. Align the rib on lower side of the module with a guide slot in the chassis and align top rib with matching guide slot in the top of the chassis.
5. Slide module in smoothly until you feel slight resistance, then continue to push gently until the module connector seats completely.
   Note: Check alignment if you feel significant resistance. Do not press hard, otherwise the connector may be damaged. When installing the module in the slot, ensure the proper connector alignment.
6. Tighten the mounting screws on the lower front panel of the module by hand or screwdriver, to secure the module in the chassis.
   Note: The torque of mounting screw is 5 - 6 kgf·cm.
7. Connect Mini-USB cable and RJ-45 cable to monitor the modules with supporting software.

To Remove the Module

1. Disconnect Mini-USB cable and RJ-45 cable
2. Loosen the mounting screws on lower front panel of the module by hand or screwdriver, to release the module from the chassis.
3. Pull the module slightly to unseat the connector.
4. Hold the module and gently remove it from the chassis

Chapter 3 Operation

Overview

This chapter provides information on the 3 options to operate the OptoStar II intelligent communications interface module (ICIM).

- Using the OptoStar II ICIM LCD to configure.
- Using the OptoStar II console to configure on PC.
- Using the OptoStar II network management system to configure on PC.

Qualified Personnel

Only appropriately qualified and skilled personnel should attempt to install, operate, maintain, and service this product. Otherwise, personal injury or equipment damage may occur.

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Starting up the Module

Initialization

When the OptoStar II platform is powered on, all modules will perform a self-test.

Follow these steps to perform the self-test:

1. Turn the front panel switch of the OptoStar II power supply module to ON position.

2. When the OptoStar II platform starts up, it will perform a booting initialization.

3. During the initialization, the LEDs on the front panels of all modules will be illuminated, and the communication status is shut off.

4. Once the initialization is completed, the status indicator will return to normal. Communication is enabled and the module is operational.

CAUTION:

- The module must be initialized; any equipment that cannot be initialized must be returned to the manufacturer for repair.
- When everything becomes stable, the module still needs to warm up for at least one hour, to make sure that its performance is normal.
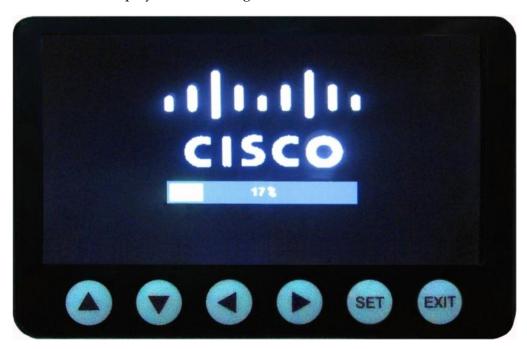
Operating using ICIM LCD

This section describes how to use the OptoStar II ICIM LCD to operate the OptoStar II intelligent communications interface module.

Start

1. Make sure that the fiber and RF cables of other modules in the OptoStar II Platform are connected.

2. Turn the front panel switch of the OptoStar II power supply module to ON position. The power supply module and other modules will initialize for about 5 seconds, and the ICIM will load for about 25 seconds.

   Note: The system will achieve optimal working condition after one hour's warm-up.

   The LCD now displays ICIM loading screen as shown below.

3. When the device initialization is complete, remove the ICIM display and begin operation.

Standby Screen

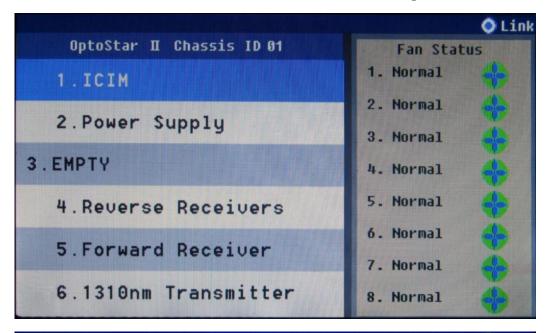OptoStar II ICIM uses a 4.3-inch color LCD screen. Below is the standby screen after the module has loaded.

Keypad Operations

The table below lists each key on the OptoStar II ICIM screen and its function.

Button	Function	
▲	In menu view, mode selection and function switch screens.	Moves the cursor up
	In reading configuration screen.	Increases numerical readings
▼	In menu view, mode selection and function switch screens.	Moves the cursor down
	In reading configuration screen.	Decreases numerical readings
◄	Moves to the previous page/Moves the cursor to the left	
►	Moves to the next page/Moves the cursor to the right	
SET	Configure/Save/Enter	
EXIT	Cancel/Return	

Module Main Menu

The illustration below shows the module main menu of the OptoStar II ICIM:
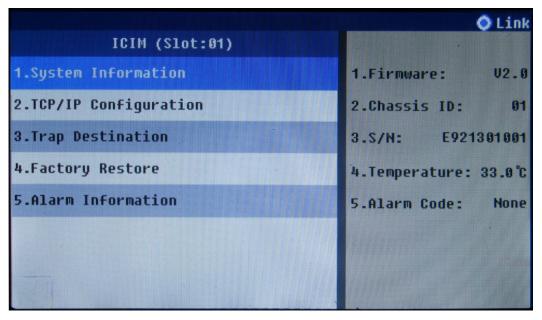

As shown in the illustration, all the local modules are located on the left side of the screen, you can press ► button to move to the next page, and view modules in other slots. The statuses of 8 fans are located on the right side of the screen. When the left Link circle at the top right corner lights in blue, it indicates connection of RJ-45 cable; if the light is off, it indicates no connection.

Press ▼ button to move the cursor down to ICIM (OptoStar II intelligent communications interface module), and press the SET button to enter the sub-menu of the ICIM module.
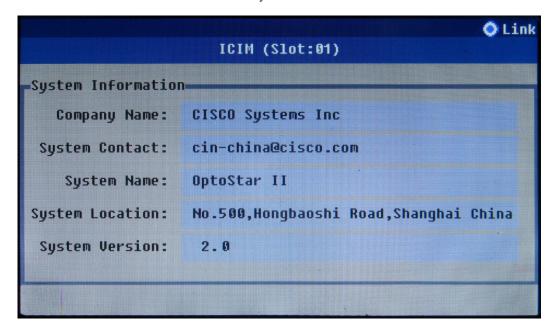
Module Sub-Menu

The following illustration shows the sub-menus of the OptoStar II intelligent communications interface module.

- The left side of the screen shows the sub-menus of the OptoStar II intelligent communications interface module. By default the cursor is on sub-menu 1. Press ▼ button to move the cursor down. Press SET button to enter the item on the sub-menu.
- The right side of the screen shows basic information of the module, including firmware version, chassis ID, S/N, module temperature, and alarm code.

Operating using ICIM LCD, Continued
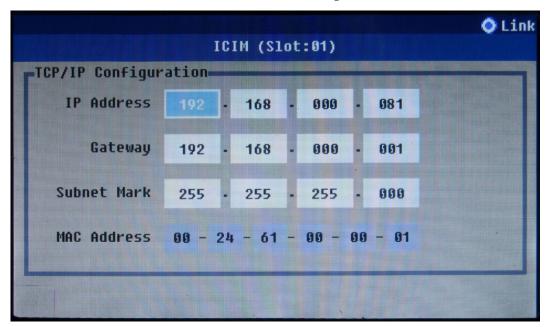
Sub-menu 1 -- System Information

The illustration below shows sub-menu 1 of the OptoStar II intelligent communications interface module – System Information.

View system information, including: Company Name, System Contact, System Name, System Location and System Version.

Operating using ICIM LCD, Continued

Sub-menu 2 -- TCP/IP Configuration

The illustration below shows sub-menu 2 of the OptoStar II intelligent communications interface module - TCP/IP Configuration.
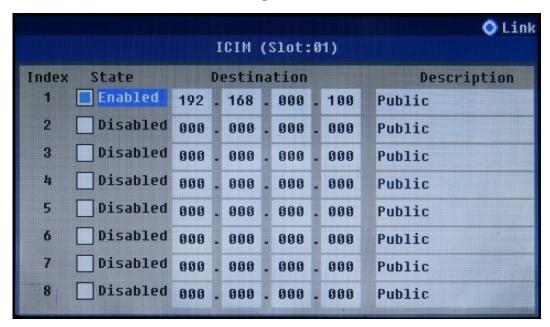

The following table lists the default TCP/IP settings.

IP Address	192. 168. 000. 081
Gateway	192. 168. 000. 001
Subnet Mark	255. 255. 255. 000
MAC Address	It's a 12-bit address and each module corresponds to a unique MAC address

Operating using ICIM LCD, Continued

Sub-menu 3 -- Trap Destination

The illustration below shows sub-menu 3 of the OptoStar II intelligent communications interface module -Trap Destination.
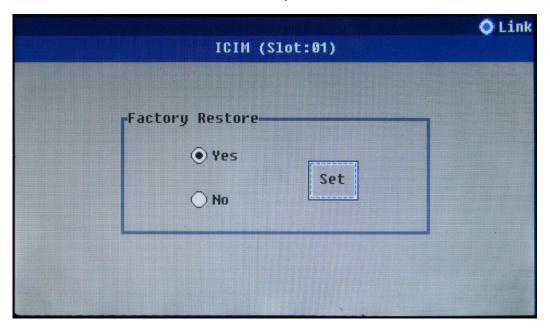
						Link
			ICIM (Slot:01)			
Index	State		Destination			Description
1	☐ Enabled	192 .	168 .	000 .	100	Public
2	☐ Disabled	000 .	000 .	000 .	000	Public
3	☐ Disabled	000 .	000 .	000 .	000	Public
4	☐ Disabled	000 .	000 .	000 .	000	Public
5	☐ Disabled	000 .	000 .	000 .	000	Public
6	☐ Disabled	000 .	000 .	000 .	000	Public
7	☐ Disabled	000 .	000 .	000 .	000	Public
8	☐ Disabled	000 .	000 .	000 .	000	Public

Default trap destination is only set to: 192. 168. 000. 100. The cursor stays on Enabled by default.

- To change or set other trap destination:
  1. Press ▲▼ to select address;
  2. Press ► button to move the cursor in the first field of the IP address;
  3. Press SET button to start the configuration;
  4. Press SET button to save the configuration.
  5. Press ◄ to move the cursor to column Disabled, and press SET button to change Disabled to Enabled, and "☐" changed to "▣".
- To cancel a trap destination: reverse operation
  1. Press SET button to save the configuration.
  2. To set more trap destination, repeat the above steps.

Operating using ICIM LCD, Continued

Sub-menu 4 -- Factory Restore

The illustration below shows sub-menu 4 of the OptoStar II intelligent communications interface module - Factory Restore.
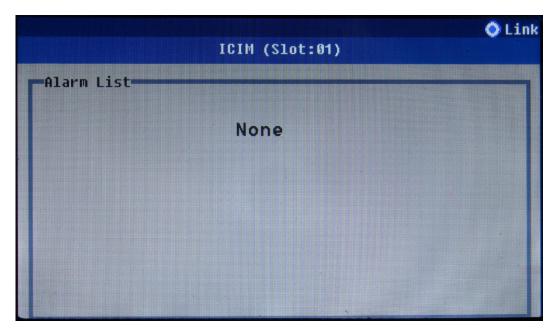

The cursor stays on "Set" by default.

- To restore factory settings
  1. Press ▲▼ buttons to select Yes, and the cursor always stays on "Set";
  2. Press SET button to save the configuration.
- To maintain factory settings
  1. Press ▲▼ buttons to select NO, and the cursor always stays on "Set";
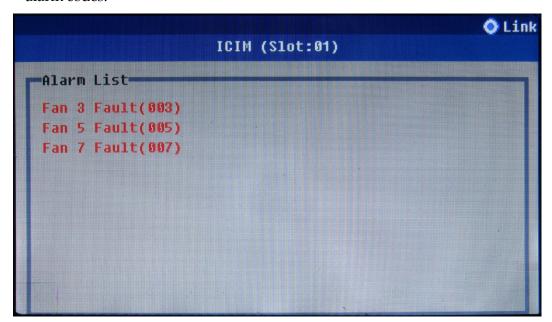 2. Press SET button to save the configuration, or directly click EXIT to quit.

Operating using ICIM LCD, Continued

The illustration below shows sub-menu 5 of the OptoStar II intelligent communications interface module – Alarm List.

You can view alarm information of the OptoStar II intelligent communications interface module.

- If there is no alarm, the Alarm List shows "None".
- If there is any alarm, the Alarm List shows alarm information and its code, as shown in the illustration below. See *Alarm Code List* (on page 3-12) for detailed alarm codes.

Alarm Code List

The table below lists the alarm information of the OptoStar II intelligent communications interface module.

Code	Item	Condition	LED
001	Fan 1 Abnormality	Fan does not work	Alarm LED is red
002	Fan 2 Abnormality	Fan does not work	Alarm LED is red
003	Fan 3 Abnormality	Fan does not work	Alarm LED is red
004	Fan 4 Abnormality	Fan does not work	Alarm LED is red
005	Fan 5 Abnormality	Fan does not work	Alarm LED is red
006	Fan 6 Abnormality	Fan does not work	Alarm LED is red
007	Fan 7 Abnormality	Fan does not work	Alarm LED is red
008	Fan 8 Abnormality	Fan does not work	Alarm LED is red
009	High Module Temperature	Module temperature higher than 85°C	Alarm LED is red

Operating using Console Software

This section introduces the procedures to use the OptoStar II console to manage the OptoStar II intelligent communications interface module.

Before You Begin

- One PC
- Mini-USB data cable
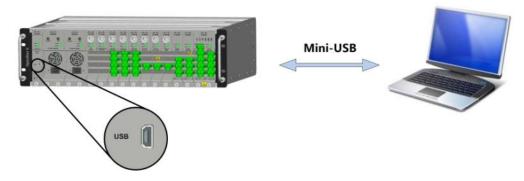- OptoStar II console software installation package

System Requirements

- **Supported operation system:** Windows 7, Windows Vista, Windows Server 2003, and Windows XP
- **Processor:** 400 MHz Pentium or equivalent processor (minimum requirement); 1 GHz Pentium or equivalent processor (recommended)
- **Memory:** 96 MB (minimum requirement); 256 MB (recommended)
- **Hard drive:** 500 MB free space
- **Monitor:** 800 x 600, 256-color (minimum requirement); 1024 x 768 high color, 32-bit (recommended)

Start

1. Make sure that the fiber and RF cables of relevant modules of the OptoStar II platform are connected.

2. Turn the front panel switch of the OptoStar II power supply module to ON position. The power supply module and other modules will initialize for about 5 seconds, and the ICIM will load for about 25 seconds.

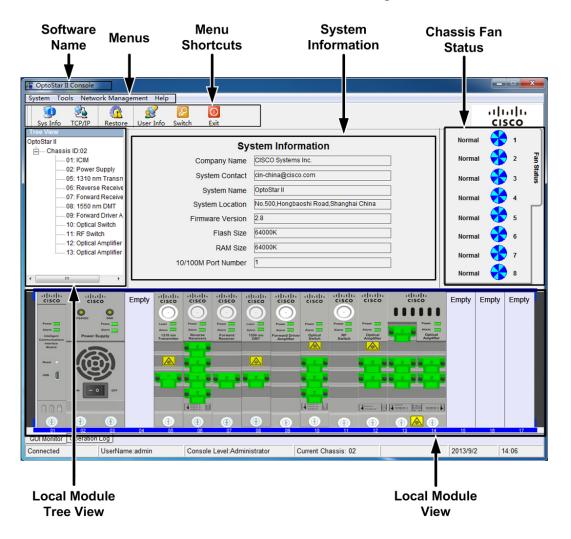   **Note:** The system will achieve optimal working condition after one hour's warm-up.

3. When the device initialization is complete, connect the Mini-USB side of the
USB cable provided with the ICIM to the Mini-USB interface of the ICIM front
panel. The other side of the USB cable should be connected to the USB
interface on the PC. Now the LCD screen shows USB connected, and the
keypads below the LCD screen are temporarily unavailable. The illustration
below shows the connection method.

4. Install and start the OptoStar II console software. See *Cisco OptoStar II
Console Installation and Operation Guide*, P/N OL-29664 for detailed
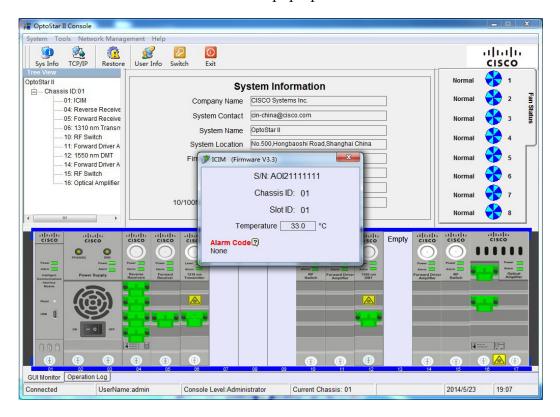installation procedures.

Software Main Interface

The illustration below shows the main interface of the OptoStar II console.

The OptoStar II console main interface shows the software name, menus, menu shortcuts, local module tree view, system information, chassis fan status, and local module view.
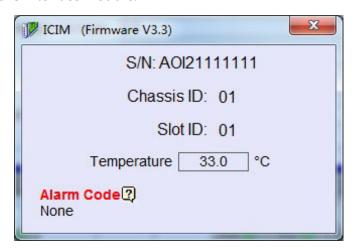
Operating using Console Software, Continued

Local Module View

Click to select the OptoStar II intelligent communications interface module in the Local Module Tree View on the left side of the screen, or in the Local Module View on the bottom of the screen. The parameter setting window of the intelligent communications interface module will pop up as shown below.

View Basic Parameters

The illustration below shows the parameter interface of the OptoStar II intelligent communications interface module.

The table below lists the basic parameters of the OptoStar II intelligent communications interface module.

Basic Parameter	Description
Module Name and Firmware Version	Shows the module name and its firmware version
S/N	Shows module serial number
Rack ID	Shows the ID of the rack where the chassis is placed
Slot ID	Shows the ID of the slot where the module is placed
Module Temperature	Shows the current module temperature (°C)
Alarm Code	Shows the current module alarm code; See *Alarm Code List* (on page 3-12)

Operating using NMS Software

This section introduces the procedures to use the OptoStar II network management system (OptoStar II NMS) to manage the OptoStar II intelligent communications interface module.

Before You Begin

- One PC
- A network cable
- OptoStar II NMS software installation package
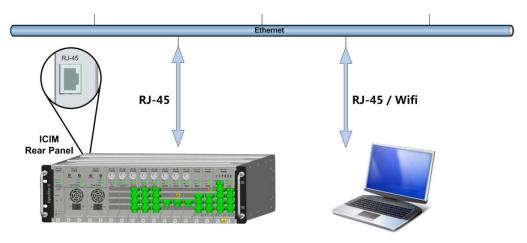
System Requirements

- **Supported operation system:** Windows 7, Windows Server 2008, Windows Vista, and Windows Server 2003
- **Processor:** 400 MHz Pentium or equivalent processor (minimum requirement); 1 GHz Pentium or equivalent processor (recommended)
- **Memory:** 512 MB (minimum requirement); 1 GB (recommended)
- **Hard drive:** 500 MB free space
- **Monitor:** 800 x 600, 256-color (minimum requirement); 1024 x 768 high color, 32-bit (recommended)

Start

1. Make sure that the fiber and RF cables of relevant modules of the OptoStar II Platform are connected.

2. Turn the front panel switch of the OptoStar II power supply module to ON position. The power supply module and other modules will initialize for about 5 seconds, and the ICIM will load for about 25 seconds.

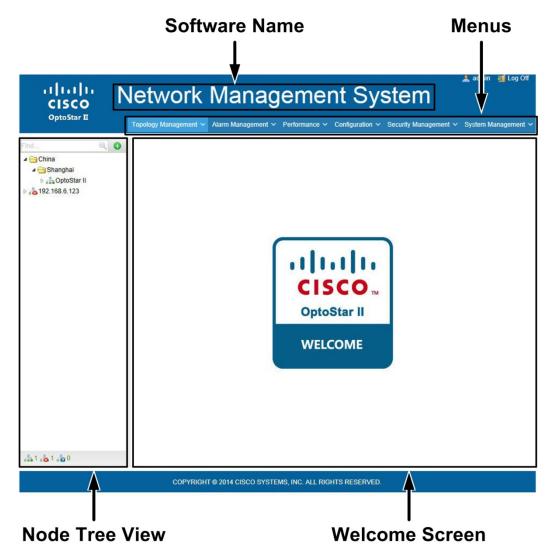   **Note:** The system will achieve optimal working condition after one hour's warm-up.

3. When the device initialization is complete, connect to the Ethernet with the RJ-45 connector on the rear panel of the ICIM. Connect the PC to the Ethernet. The illustration below shows the connection method.

4. Install and start the OptoStar II NMS software. See *Cisco OptoStar II NMS Installation and Operation Guide*, P/N OL-29665 for detailed installation procedures.

Operating using NMS Software, Continued
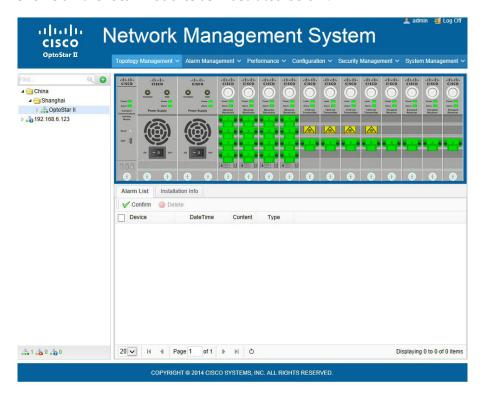
Software Main Interface

The illustration below shows the main interface of the OptoStar II NMS
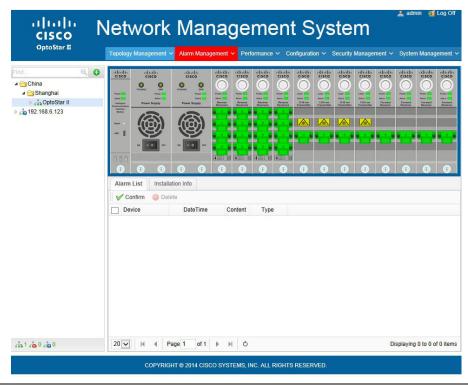
The OptoStar II NMS main interface shows the software name, menus, node tree view, and welcome screen.

Operating using NMS Software, Continued

Local Module View

Select the topology tree view and view the corresponding node. The interface shows all the local modules as illustrated below.
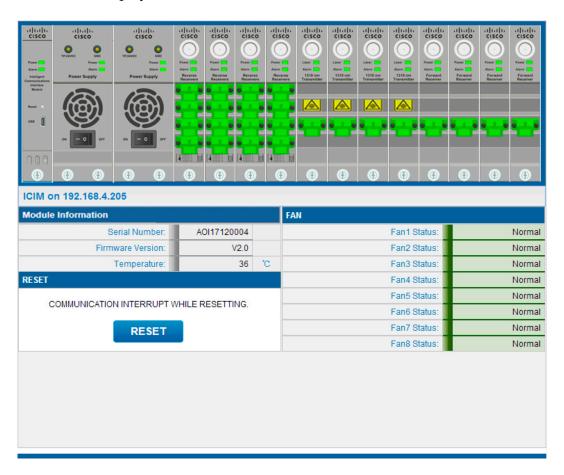

Note: When there is alarm, the Alarm Management menu turns to red. The system interface is shown as below.

View Basic Parameters

Click to select the OptoStar II intelligent communications interface module in the interface which shows all the local modules. The parameter interface of the module will display as illustrated below.

Operating using NMS Software, Continued

The table below lists the basic parameters of the OptoStar II intelligent communications interface module.

Basic Parameter	Description
Module Basic Information	
Module Node Location	Shows the IP of the node where the module is located
S/N	Shows module serial number
Module Firmware Version	Shows firmware version
Module Temperature	Shows the current module temperature (°C)
Fan Status	
Status of 8 Fans	Shows if the chassis fans are in normal status
Restore factory settings	
Reset	Restore Factory Settings

Operation

Chapter 4 Troubleshooting

Overview

This chapter provides instructions for maintaining and repairing the OptoStar II intelligent communications interface module.

Qualified Personnel

Only appropriately qualified and skilled personnel should attempt to install, operate, maintain, and service this product. Otherwise, personal injury or equipment damage may occur.

In This Chapter

Topic	Page
Maintenance	4 - 2
General Troubleshooting Information	4 - 3

Maintenance

The following maintenance is recommended to ensure optimal performance.

Frequency	Maintenance Required
Yearly	Check all parameters and test points
	Make sure all cables are mated properly
	Inspect cables for stress and deformation
	Make sure all retaining screws are tight
	Ensure good ventilation
	Record data
When Needed	Carefully clean the module with a soft cloth

Maintenance Record

It may be helpful to establish a maintenance record or log for this module. You may want to record chassis fan status and module temperature.

Significant variations in any of the parameters above should be investigated to prevent failure.

General Troubleshooting Information

This troubleshooting information describes the most common alarms and gives typical troubleshooting procedures and causes.

Equipment Needed

You may need the following equipment to troubleshoot the module.

- A Mini-USB cable
- A RJ-45 cable

Additional Assistance

If you need additional assistance, please contact our customer support team or your local service center. See *Customer Support Information* (on page 5-1) for more details.

Troubleshooting

If the red alarm indicator on the front panel of the module is illuminated, check the OptoStar II ICIM display, the OptoStar II console, or the OptoStar II NMS for alarm code. See *Alarm Code List* (on page 3-12) to determine the cause of the alarm. See the table below.

Alarm	Possible Cause	Servicing Instruction
Fan Abnormality	• Fan has line fault • Fan is jammed by foreign body	• Replace the fan, or contact the manufacturer for servicing
High Module Temperature	• High ambient temperature leading to insufficient heat dissipation • Poor chassis ventilation • Chassis fan failure	• Ensure good ventilation • Put the chassis in a place with good ventilation • In case of fan failure, replace the fan, or contact the manufacturer for servicing
After connection of Mini-USB, ICIM LCD does not show USB connection screen	• Mini-USB cable failure • Mini-USB port failure	• Check if it's properly connected or re-connect it • Replace with other data cable • If still no response, contact the manufacturer for servicing
After connection of RJ-45 cable, the Link indicator at the top right corner of the ICIM screen is not lit.	• RJ-45 cable failure • RJ-45 port failure	• Check if it's properly connected or re-connect it • Replace with other data cable • If still no response, contact the manufacturer for servicing

⚠**CAUTION:**

Do not open the enclosure of this module in any case. Opening the enclosure may result in equipment damage, and you may lose the warranty eligibility.

Chapter 5 Customer Support Information

Overview

This chapter contains information on obtaining product support.

In This Chapter

Topic	Page
Obtaining Product Support	5 - 2
Return for Repairing	5 - 4

Obtaining Product Support

IF…	THEN…
you have general questions about this product	Contact your distributor or sales agent for product information or refer to product data sheets on www.cisco.com.
you have technical questions about this product	Call the nearest Technical Service center or Cisco office.
you have customer service questions or need a return material authorization (RMA) number	Call the nearest Customer Service center or Cisco office.

Support Telephone Numbers

This table lists the Technical Support and Customer Service numbers for your area.

Region	Centers	Telephone and Fax Numbers
North America	Atlanta, Georgia United States	For *Technical Support*, call: Toll-free: 1-800-722-2009 Local: 678-277-1120 (Press **2** at the prompt) For *Customer Service*, call: Toll-free: 1-800-722-2009 Local: 678-277-1120 (Press **3** at the prompt) Fax: 770-236-5477 E-mail: customer-service@cisco.com
Europe, Middle East, Africa	Belgium	For *Technical Support*, call: Telephone: 32-56-445-197 or 32-56-445-155 Fax: 32-56-445-061 For *Customer Service*, call: Telephone: 32-56-445-444 Fax: 32-56-445-051 E-mail: service-elc@cisco.com
Japan	Japan	Telephone: 82-2-3429-8800 Fax: 82-2-3452-9748 E-mail: songk@cisco.com

Region	Centers	Telephone and Fax Numbers
Korea	Korea	Telephone: 82-2-3429-8800 Fax: 82-2-3452-9748 E-mail: songk@cisco.com
China (mainland)	China	Telephone: 86-21-2401-4433 Fax: 86-21-2401-4455 E-mail: repaircentercn@external.cisco.com
All other Asia-Pacific countries & Australia	Hong Kong	Telephone: 852-2588-4746 Fax: 852-2588-3139 E-mail: support.apr@sciatl.com
Brazil	Brazil	Telephone: 11-55-08-9999 Fax: 11-55-08-9998 E-mail: fattinl@cisco.com or ecavalhe@cisco.com
Mexico, Central America, Caribbean	Mexico	For *Technical Support*, call: Telephone: 52-3515152599 Fax: 52-3515152599 For *Customer Service*, call: Telephone: 52-55-50-81-8425 Fax: 52-55-52-61-0893
All other Latin America countries	Argentina	For *Technical Support*, call: Telephone: 54-23-20-403340 ext 109 Fax: 54-23-20-403340 ext 103 For *Customer Service*, call: Telephone: 770-236-5662 Fax: 770-236-5888 E-mail: keillov@cisco.com

Return for Repairing

Introduction

Before returning your product, you must obtain a Return Material Authorization (RMA) number. Call the nearest Customer Service center and follow their instructions.

Procedures of returning your product to Cisco for repairing:

- Obtain RMA number and mailing address
- Package and mail the product to be repaired

Obtain RMA number and mailing address

Before return your products, you must obtain a RMA number.

RMA number is valid for 60 days. If your RMA number expires, you must call your customer service representative to update it before returning your equipment. You can return your product after updating the RMA number. Otherwise, your RMA application may be postponed.

Follow the procedures below to obtain your RMA number and mailing address:

1. Contact your customer service representative to apply for a new RMA number, or update an existing RMA number. Obtain customer service numbers for your area in *Obtaining Product Support* (on Page 5-2).
2. Provide the following information to your customer service representative:

   - Company name, contact person, telephone number, e-mail address and fax number.
   - Product name, model, part number, SN (if any)
   - Number of returned products
   - Return reason and Repairing/Maintenance Permissions
   - Any related service detail
3. When your customer service representative sends a RMA number to you, you will be required to fill in a purchase order or make advance payment to cover estimated repair costs.

   Note: Users who pay by credit card or cash will receive a proforma invoice after the repair work is completed, which lists breakdown of repair costs.

   Within 15 days upon your receipt of the proforma invoice, the customer service center must receive a purchase order number. During the warranty period, product subject to destruction, misuse, modification, or no problems found would generate costs. The product with additional generated costs will not be returned to the customer until valid P/O number is received.

Continued on next page

Customer Support Information

4. Users can confirm receipt of the RMA number via e-mail or fax. The RMA will list details such as RMA number, verified products to be returned and number of returned products, mailing address and RMA clauses.
   Note: Also, users can obtain and complete a RMA application form, and send it to customer service representative via fax, or
   e-mail: repaircentercn@external.cisco.com

Packaging and Mailing

Follow the steps below to package and return your product to Cisco.

Do you have the original packaging boxes and packaging materials?

- Yes: use the original packaging boxes and packaging materials to package your product
- No: use sturdy corrugated cardboard box meeting transportation requirements to package your product, and fill with packing materials.

Important: Users are responsible for safely mailing products to Cisco without any damage. Products with damage caused during transportation and due to improper packaging will be refused and returned to the user. In such case, the costs will be borne by the user.

Note: Do not return any power cable, accessory cable, or other accessories. Your customer service representative will provide specific instructions on how to order and replace any power cable, accessory cable, or other accessories.

Please fill in the following information on the external surface of the shipping box:

- RMA number
- User name
- Full address of the user
- Telephone number of the user
- "Attention: Factory Service"

Important: RMA number must be clearly marked on all returned products, packaging boxes, and accompanying documents. If the RMA number received by the factory service department is illegible, the RMA handling procedures will be delayed. The recipient for all returned products must be "Factory Services".

Returned products must be mailed to the address specified on the confirmation email or fax sent by the customer service representative.

Note: Cisco does not accept Freight Collect. Make sure that you choose freight prepaid method and purchase transportation insurance. The user should bear both freights to Cisco and all related import and export tariffs for any returned product, whether it's within the warranty period or not. For the product within the warranty period, Cisco will pay the freight when shipping repaired product to the user.

International Transportation: Fill in Cisco as International Transport Recipient, and state the notified party on the waybill as "international freight transport clearance contact".

Upon delivery of the equipment with complete RMA number, the receiving department will notify the user via fax or e-mail, and confirm the received products and the quantity. Please carefully check the confirmation letter to ensure that the products and the quantity received by Cisco are consistent with your shipment information.