



Preface

This preface explains the objectives of, intended audience for, organization of, and conventions used in this Cisco CRS Carrier Routing System Multishelf System Description, which is referred to as the “system description” throughout this publication.

Throughout the remainder of this system description, abbreviated terms are used to identify the formal names of the components that make up the multishelf system. See the below table for a list of these abbreviated terms.

Table 1: Abbreviated Terms

Cisco Product Name	Abbreviated Term
Cisco CRS Multishelf System	multishelf system
Cisco CRS 16-Slot Line Card Chassis	LCC
Cisco CRS Fabric Card Chassis	FCC



Note

Throughout this document, the generic term Cisco CRS Carrier Routing system refers to the Cisco CRS-1, Cisco CRS-3, and Cisco CRS-X Carrier Routing Systems, unless otherwise specified.

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Objective

This system description provides high-level details of the Cisco CRS Fabric Card Chassis (FCC) and an overview of the multishelf system. It includes background information and basic theory of operation for anyone wanting to understand a multishelf system configuration. It includes descriptions of most of the major assemblies that make up the system.

This system description is technical reference publication that supplements the information found in the various publications that make up the multishelf system documentation set. The system description publication provides overviews of the hardware elements that make up a multishelf system and some basic theory of operation.

Audience

This guide is intended for anyone who wants a general overview of the multishelf system and its major hardware components.

Document Organization

This system description contains these chapters and appendixes:

- [Cisco CRS Multishelf System Overview](#) provides an overview of the multishelf system.
- [Power System Overview](#) provides a detailed physical description of the FCC DC and AC power systems.
- [Fabric Card Chassis Cooling System](#) provides an overview of the FCC cooling system.
- [Multishelf System Switch Fabric](#) provides an overview of the switch fabric and the switch fabric cards used in the FCC.
- [Shelf Controller Gigabit Ethernet Card](#) provides an overview of the 2-port and 22-port shelf controller Gigabit Ethernet (SCGE) card installed in the FCC.
- [Optical Interface Modules and Optical Interface Module LED Card](#) provides an overview of optical interfaces and the optical connection monitoring card installed in the FCC.
- [Specifications](#) provides tables of specifications for the FCC and its major components.

Document Conventions

This guide uses these conventions:

**Caution**

Means *reader be careful*. You are capable of doing something that might result in equipment damage or loss of data.

**Note**

Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in this manual.

Warning Definition

Danger	Danger	IMPORTANT SAFETY INSTRUCTIONS
	Danger	This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071
	Danger	SAVE THESE INSTRUCTIONS

See Regulatory Compliance and Safety Information for the Cisco CRS-1 Carrier Routing System for translations of warnings and information about the regulatory, compliance, and safety standards with which the Cisco CRS system conforms.

Related Cisco CRS Documentation

For a complete listing of Cisco CRS planning, installation, and configuration documents, see these publications:

- Cisco CRS Carrier Routing System Hardware Documentation Guide
- About Cisco IOS XR Software Documentation

See the *Obtaining Documentation and Submitting a Service Request* section below for information on obtaining these and other publications.

Changes to This Document

This table lists the technical changes made to this document since it was first printed.

Table 2: Changes to This Document

Revision	Date	Change Summary
OL-7071-08	July 2014	Added information about new CRS-FCC-SFC-400 S2 switch fabric card and new CRS-FCC-SC-22GE-B shelf controller card for 400G CRS-X system.

Revision	Date	Change Summary
OL-7071-07	March 2011	Updated document to include AC modular configuration power solution and the CRS-FCC-SFC-140 for the 140G CRS-3 system.
OL-7071-06	September 2010	Updated document to include modular configuration power solution.
OL-7071-05	March 2009	Updated document to include 8+4 configuration information.
OL-7071-04	February 2007	The document was updated to include information about the 22-port shelf controller Gigabit Ethernet (22-port SCGE) card.
OL-7071-03	September 2006	The document was updated with technical corrections.
OL-7071-02	July 2006	These changes were made: <ul style="list-style-type: none"> • <i>Chapter: Cisco CRS Multishelf System Overview</i> was modified to introduce the two- and four-FCC multishelf system configurations.
OL-7071-01	July 2005	Initial release of this document.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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