Preface

This guide provides an overview and explains how to configure various features for the following OCx interface modules:

Table 1: Supported Interface Module

Interface Module	Part Number	Mode
1 port OC-48/STM-16 or 4 port OC-12/OC-3 / STM-1/STM-4 + 12 port T1/E1 + 4 port T3/E3 CEM Interface Module	• A900-IMA3G-IMSG	• T1/E1 • T3/E3
1-Port OC-192 or 8-Port Low Rate CEM Interface Module	• A900-IMA8S1Z-CX	
ASR 900 1-Port OC-192 or 8-Port Low Rate CEM 20G Bandwidth Interface Module	• A900-IMA1Z8S-CXMS	

Document Organization

Chapter	Description
Overview of the OCx Interface Modules	Provides a high-level overview of OCx CEM interface modules. Also provides additional information such as restrictions, benefits, and so on. Provides information about the Cisco Software License Activation feature.

Chapter	Description
Configuring Synchronous Optical NETwork (SONET) and Synchronous Digital Hierarchy (SDH)	Provides information about how to configure the following features on SONET and SDH: • Line and section configuration parameters such as BERT, clock, loopback, mode, and so on • SONET T1, T3, and VT parameters such as BERT, clock, framing, loopback, shutdown, and so on. • SDH T1, T3, and VC parameters such as BERT, CEM group, clock, loopback, shutdown, and so on. • Loopback remote on T1 and T3 interfaces • CEM group on framed SAToP
Configuring Interworking Multiservice Gateway (iMSG)	Provides information on how to configure the following features: • Serial Interfaces • iMSG Access Circuit Redundancy • Multilink Interfaces • VLAN Handoff
Configuring OCx Protection	Provides information on how to configure the following port and path protection features: • Automatic protection switching (APS) for port protection • Multiplex Section Protection (MSP) for port protection • Unidirectional Path Switching Ring (UPSR) • UPSR over HDLC • Subnetwork Connection Protection (SNCP)
Configuring Data Communication Channel (DCC) and Target Identifier Address Resolution Protocol (TARP)	Provides information on how to configure DCC, Transparent Overhead Tunneling, and TARP.
Configuring Bandwidth for OCx Modules	Provides information on how to configure 5G mode on 1-Port OC-192 or 8-Port Low Rate CEM Interface Module

Chapter	Description
Additional References	Provides information about SONET and SDH frames. • SONET Frame Structure—Details on STS-1 and STS-3 frames , concatenated, and Channelized SONET frames. • SDH Frame Structure—Details on STM-1 frame and Virtual Container (VC).

Related Documentation

- Alarm Configuring and Monitoring Guide
- CEM Generic Guide
- 48-Port T1 or E1 CEM Interface Module Configuration Guide
- 48-Port T3 or E3 CEM Interface Module Configuration Guide