

Cisco IOS Software Release 11.3(4)HA

Introduction

This Product Bulletin describes the features in Cisco IOS(TM) software release 11.3(4)HA. This release is specific to supporting the Cisco ISR 3303 Integrated SONET Router. It should be used in conjunction with Product Bulletin titled, Cisco IOS Software Release 11.3(4)T.

New Features

11.3(4)HA is an Early Deployment (ED) release. This release is focused on delivering SONET UPSR, SONET APS, Ethernet interface support and DS1 (T1) Facility support for the Cisco ISR 3303 platforms.

Detailed Information

11.3(4)HA is for operation only on the ISR 3303. The ISR 3303 is a hybrid SONET ADM (Add-Drop Multiplexer) and Cisco Router that supports redundant or non-redundant OC-3 interfaces as the Network side interface, and supports 8 DS1 transmission interfaces and 8 10BaseT ethernet interfaces. The system consists of a chassis, one or two SAM modules, and a fan unit. When configured as a redundant system, the ISR supports redundancy for the system processor, IOS*, system memory, routing/bridging hardware, SONET hardware and DS1 processing.

Note: Only one copy of IOS is purchased and loaded onto a redundant system. The system performs synchronization of the active IOS image to the redundant processor.

For more detailed information about the platforms and features being delivered in 11.3(4)HA, please reference the following document.

- Release Notes for Cisco 3300 Series for Cisco IOS Release 11.3(4)HA

Features in 11.3(4)HA

The ISR 3303 supports SONET ADM functionality and basic layer II and layer III functionality. 11.3(4)HA is a subset of the standard ip feature set and only supports a minimal IOS subset. The following system features are supported:

• IP Routing Features

- Static routing
- Cisco Discovery Protocol (CDP)
- Custom Queuing Addresses and Protocols
- ICMP Path Discovery
- IP Access Lists Violation Logging
- Named IP Access Control Lists
- TCP Selective Acknowledgement
- UDP Flooding
- Policy Routing
- Comprehensive Access Lists
- Fast Switched Policy Routing
- In-bound Access Lists
- ICMP Router Discovery Protocol
- Priority Queuing
- TCP Timestamp
- UDP/IP Broadcasts
- ARP
- Custom & Priority Queuing MIB
- ICMP Services
- Integrated IS-IS
- Multiple IP Helper Addresses
- RARP and BOOTP
- Tunneling (GRE)
- Weighted Fair Queuing

• IP Switching and WAN Features

- Concurrent Bridging and Routing
- Bridged ELANs
- Half Bridge/router for CPP and PPP
- PPP Link Quality Monitoring
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- Fast Switched Policy Based Routing
- Bridging
- Multi-link PPP (RFC 1717)
- Virtual Interfaces
- Transparent Bridging
- CHAP
- PAP

• SONET Interface Support

- OC-3 Interface Support
- SONET UPSR support for VTs
- STS-1 pass-through
- OC, STS-1, and VT loopbacks
- Synchronous status messaging (rx/tx)
- Section Trace support
- Section, Line, STS Path and VT Path (near-end and far-end) PM
- SONET APS support
- UPSR auto-provisioning
- Remote defect identification (RDI)
- OSI DCC via TL 1 tunneling
- Revertive and non-revertive Switching
- VT PM on dropped circuits
- Redundant synchronization via OC-3s
- OSI CLNP interoperability

• DS1 Features

- DSX-1 signal level with LBO
- Superframe (SF)
- B8ZS
- Integrated BER testing and pattern generation
- DS1 Retiming
- Near-end and far-end PM
- Unframed (UNF)
- DS1 equipment and facility loopbacks
- DS1 retiming for external DS1 lines
- Extended Superframe (ESF)
- Alternate mark inversion (AMI)
- Integrated CSU functionality for serial DS1
- Single timing input through external DS1

• System-Level Features

- Redundant Processor, IOS/Database and RAM
- Redundant Stratum 3 clock sources
- Command Prompt Confirmation (CPC)
- Support for standing conditions and Alarms
- Fixed (per Bellcore) performance monitoring grade-of-service
- Redundant 10Base-T interfaces
- Remote software download support
- Auto-fallback on failed upgrade
- Default and editable alarm profile tables
- Redundant T1 TDM interfaces
- Remote config file backup and restore
- Automatic system alarming and PM
- Support for transient conditions (PM TCAs)

Features NOT in 11.3(4)HA

The following IOS features are not supported and are under consideration for inclusion into later releases:

• IP Routing Features

- BGP Support and associated features
- Generic Traffic Shaping
- IP Multicast (PIM, IGMP)
- Multicast Fast Switching
- OSPF and associated features
- TCP Header Compression
- EGP/EGIRP
- IGRP
- IP TOS Queuing
- Loadsharing
- RIP and associated features
- TCP Intercept
- Filtering Router Information
- IP Accounting
- ISPO
- MD5 Route Authentication (RFC 1321)
- Random Early Detection

Product Numbers and Descriptions

Cisco IOS Software Release 11.3(4)HA can be ordered using the following product numbers.

Table 1 11.3(4)HA Product Numbers and Descriptions

Product Number	Description
ISR3303-R-SC	Cisco ISR 3303 Integrated SONET/SDH Router (OC-3/T1) Redundant System
ISR3303-NR-SC	Cisco ISR 3303 Integrated SONET/SDH Router (OC-3/T1) Redundant System
ISR3303-FUSE=	ISR 3303 Fuse for Spare
ISR3303-FAN=	ISR 3303 Fan Module for Spare
ISR3303-BLANK	ISR 3303 Blank SAM Module
ISR3303-CHASS	ISR 3303 -48 Volts D.C. Chassis
ISR3303-FLTR=	ISR 3303 spare fan filter
SF33C-11.3.4H2	ISR 11.3 Base Software

Note on system configuration:

When there is a need to order a SYSTEM, enter the ISR3303-R-SC or ISR3303-NR-SC ordering items. By specifying these part numbers, the shipped order will come with the chassis, the appropriate number of SAMS (R=2, NR=1). Also specify separately software as part of the order of a system. the latest version of supported IOS (in this case, 11.3.(4)HA). Documentation and an installation and accessories package are also included with the system order. The remaining part numbers should only be used for ordering replacement parts, or spares, for an existing system.

Feature Sets, Images and Minimum Memory Requirements

The ISR system only supports the feature sets listed within this document. The 11.3(4)HA image is specific to the ISR 3303 and currently the only supported image. The system is equipped with the necessary memory to support all features and functionalites of 11.3(4)HA. No additional memory is required.



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