

Cisco IOS Software Release 12.0SL

Document ID: 20286

Early Deployment (ED) Release Summary

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Description of the Release

Cisco IOS® Software Release 12.0(9)SL is a specific technology early deployment release (STED) optimized for C10000. This release is based upon 12.0S. This release introduces support for C10000 leased line aggregation router. Any early deployment (ED) release of software should be used in a test network before being deployed in a production network.

Main features for Cisco IOS Software Release 12.0(9)SL

The C10000 ESR is a leased line aggregation router purpose-built for today's Internet service provider. It offers dedicated high-density IP services and provides an Internet edge solution ideally suited for deployment of large-scale IP edge services. Release 12.0(9)SL runs on the Performance Routing Engine of the C10000 ESR enabling it to be configured and managed using the Cisco IOS command line interface (CLI) features and capabilities and/or through a separate element management system. The C10000 Edge Services Router will only support IP as a layer 3 routing protocol, specifically, the Cisco IOS Software Release.

Cisco IOS Software Release 12.0(9)SL on the C10000 Edge Services Router will have support for:

- Cisco IOS command line interface (CLI)
- SNMP agent and MIB support for managing the platform through an optional element manager software application (Cisco Element Management System)
- Configuration of all C10000 ESR interfaces and all system-wide parameters

Features supported in Cisco IOS Software Release 12.0(9)SL include:

- **OSPF, BGP, IS-IS, EIGRP**

Support for routing protocols such as OSPF, BGP, IS-IS and EIGRP

- **Turbo ACL**

Turbo ACL feature allows for a more efficient searching algorithm. The algorithm for access list processing has been to process ACLs one line at a time. The entire list must be scanned one line at a time and the performance is proportional to the matching depth. Turbo ACL allows the list to be parsed in a more efficient manner. The ACL evaluations are independent of matching depth and they run much faster.

Features

- **IP Load Balancing**

The C10000 using the IP load balancing mechanism will distribute packets across multiple links based on the layer 3 routing information. This load balancing is done either on a per packet or a per destination approach.

- **MPLS RRR**

The C10000 will support Multi protocol label switching, Routing for Resource Reservation protocol. MPLS RRR enhances network efficiency and QOS delivery.

- **QOS WRED**

The Weighted Random Early Detection (WRED) mechanism allows for preferential traffic handling of higher priority packets. WRED detects the beginning of congestion on an output interface, and subsequently assigns a different drop priority to each packet type. With WRED using the IP precedence values to classify packets, users can prioritize premium traffic over all other traffic.

- **Committed Access Rate**

With CAR, users can classify an incoming or outgoing packet into a QOS group, as well as limit the input or the output transmission rate on an interface.

- **MLPPP**

Multi-Link PPP offers a standard based mechanism to bridge the gap between DS1 at 1.5 Mbit/sec and DS3 at 45 Mbit/sec. The MLPPP feature on the C10000 allows for the maximum of 10 DS1s per bundle with the expectation that an average bundle will consist of 4 DS1s. Configuration of MLPPP is supported on the channelized DS3 and channelized OC-12 interfaces. **Other features also available at FCS are:**

- Router Processor Redundancy
- Multicast CEF
- RPF Check
- Kerberos/Radius authentication

Support Pages

For more information, consult the following web pages:

Release Documentation

- Cisco 10000 ESR Release Notes

Parent Release Documentation

- Release Notes for Cisco 7000 Family and Cisco 12000 Series Routers for Cisco IOS Release 12.0 S

Other Links

- Cisco IOS Field Notices

	<ul style="list-style-type: none"> • Cisco IOS Reference Guide • 12.0 Product Bulletins 		
Target Market	Cisco Systems, Inc. released Cisco IOS Software Release 12.0SL as an ED release for the Cisco 10000. It is targeted for the SP Market.		
Recommended Customer Migration Path	Based On (root)		Next available in
	Cisco IOS Software Release 12.0(9)S		Cisco IOS Software Release 12.2(2)T
	The recommended migration path is the logical superseding release, which brings additional features and hardware support to the network without loss of previously configured functionality.		
Maintenance Releases	Release	CCO Post Date	MFG Ship Date
	Cisco IOS Software Release 12.0(9)SL	8/00	General Availability
Release Type	Cisco IOS Software Release 12.0(9)SL is an Early Deployment Release. Early Deployment Releases (ED) as a group are based on Major Releases of Cisco IOS Software. ED Releases are a vehicle to quickly deliver new functionality, addressing the need for early availability of product. These Releases provide new technologies for customers to deploy in a limited manner in their networks.		
Lifecycle	Milestones	Y2K Compliance	Certification
	CCO FCS:August 2000 MFG FCS:G.A. EOS: EOE: EOL:	Yes	ED

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Updated: Feb 17, 2003

Document ID: 20286