

# Cisco IOS Early Deployment Release 12.0(10)SL

## Introduction

This Product Bulletin describes the content and delivery information concerning Cisco IOS(TM) software release 12.0(10)SL. This release is focused on the C10000 ESR platform. For more information about the Cisco IOS software release process, please see Product Bulletin #537. Cisco IOS software release 12.0(10)SL is an Early Deployment (ED) release, which delivers support for the Cisco C10000 ESR platform. 12.0(10)SL is being offered for the following reasons:

- Stability release for leased line aggregation customers.

The process to deliver 12.0(10)SL is based on the Cisco IOS ED release process. Unique distinctions for 12.0(10)SL are:

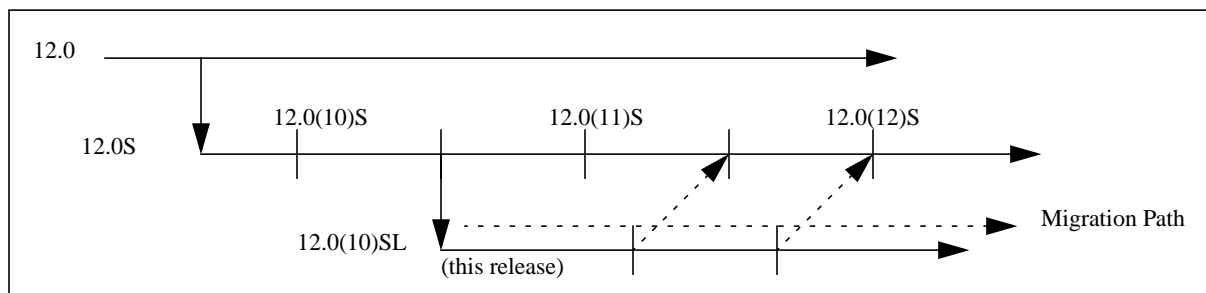
- 12.0(10)SL is based on the 12.0 Major Release, and is directly parented from 12.0S.

- There is a one-to-one correspondence of maintenance releases 12.0S and 12.0SL.

## Migration Guide

Diagram 1 below displays Cisco IOS 12.0(10)SL release functionality relative to the 12.0 and 12.0S releases. This diagram also identifies the recommended migration path.

Diagram 1: Cisco IOS Release 12.0(10)SL Release Train



## New Features in Cisco IOS Release 12.0(10)SL

The following features will be delivered in the initial release of 12.0(10)SL.

Table 1 Cisco IOS Release 12.0(10)SL New Features

| <b>New Feature</b>       | <b>Product Number</b> | <b>Platform 1</b> |
|--------------------------|-----------------------|-------------------|
| <u>Channelized OC-12</u> | <u>ESR-1COC12-SMI</u> | <u>C10000 ESR</u> |
| <u>OC-12 ATM</u>         | <u>ESR-1OC12-ATM</u>  | <u>C10000 ESR</u> |

Please see the next section for documents that address details on these new features. Any ED release of software should be utilized first in a test network before being deployed in a production network.

## Detailed Information

### Channelized OC-12 line card

The Cisco 10000 ESR Channelized OC-12 Interface Module supports the highest-density DS1 connectivity in the industry. A fully configured Cisco 10000 ESR with six Channelized OC-12 line cards and redundant uplink cards supports 2000 DS1 connections, and by configuring up to six Cisco 10000 ESRs per 30" deep, seven-foot rack, in a back to back configuration, the Cisco 10000 ESR solution supports more than 12,000 DS1 connections per rack. In addition to density and scalability, the Cisco 10000 ESR Channelized OC-12 card provides the flexibility of supporting any combination of up to 12 DS3 connections, 336 DS1 connections, nxDS1 up to 24 DS0 channels per DS1, or 28 individual VT 1.5 channels, up to a total of 768 channels per card (192 channels per STS-3). VT1.5 will be supported in a follow up maintenance release. Customers have flexibility of mixing and matching virtually any combination of nxDS0s, DS1s, fractional DS1s, or DS3s at the individual Channelized OC-12 card level. The Channelized OC-12 line card implements SONET automatic protection switching (APS), which provides for a very fast Layer 1 switch over mechanism to support 1:1 redundant transmission circuits

### OC-12 ATM line card

The Cisco 10000 Edge Services Router (ESR) single-port OC-12 ATM interface line card provides OC-12 (622 Mbps SONET/SDH) uplink from an aggregation router to the ATM networks. While focused on intra-pop ISP router to router connectivity, the ESR OC-12 ATM line card also addresses applications which rely on broadband IP transport over ATM WAN's. This card receives and transmits ATM cells on the physical interface while transmitting and receiving packets from the backplane. The OC-12 ATM line card supports the following:

- SONET/SDH OC12 STS-12c/STM-4c framing format.
- Support for up to 2000 VCs per system
- Supports all 16 VCI and 8 VPI bits.
- Supports AAL5 data transport, F4 and F5 OAM cells.
- Support for MTUs of up to 9180 octets.
- Support for per-VC and per-VP traffic shaping for VBR circuits.
- Support for per-VC queuing, on nr-VBR VCs.

## Support

Cisco IOS software release 12.0(10)SL follows the standard Cisco support policy as indicated in the following link.  
<http://www.cisco.com/warp/customer/437/27.html>

## Product Numbers

Table 2 Cisco IOS Release 12.0(10)SL Feature Sets, Images, and Memory Recommendations

| Platform          | Product Description   | Product Code     | Image        | Flash        | DRAM          |
|-------------------|---|------------------|--------------|--------------|---------------|
| <u>C10000 ESR</u> | Cisco 10000 Series IOS SERVICE PROVIDER/ SECURED SHELL 56   | S10K3Z-12.0.10SL | c10k-k3p6-mz | <u>40 MB</u> | <u>128 MB</u> |
| <u>C10000 ESR</u> | Cisco 10000 Series IOS SERVICE PROVIDER/ SECURED SHELL 3DES | S10K4Z-12.0.10SL | c10k-k4p6-mz | <u>40 MB</u> | <u>128 MB</u> |
| <u>C10000 ESR</u> | EDGE SERVICES ROUTER (p6)                                   | S10KIP-12.0.10SL | c10k-p6-mz   | <u>40 MB</u> | <u>128 MB</u> |

### Additional Information

Cisco IOS Software Release 12.0SL Release Notes

<http://www.cisco.com/univercd/cc/td/doc/product/aggr/10000/10krm/index.htm>

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