Cisco IOS Early Deployment Release 12.2(4)MB13

Introduction

This Product Bulletin describes the content and delivery information concerning Cisco IOS(TM) software release 12.2(4)MB13. This release is focused on the 2651, 7200VXR and 7500 hardware platforms which support the IP Transfer Point (ITP) software feature. The features delivered with this release will be incorporated into the 12.2(x)T release, but 12.2(4)MB13 represents a release vehicle that provides these features sooner. For more information about the Cisco IOS software release process, please see Product Bulletin #537.

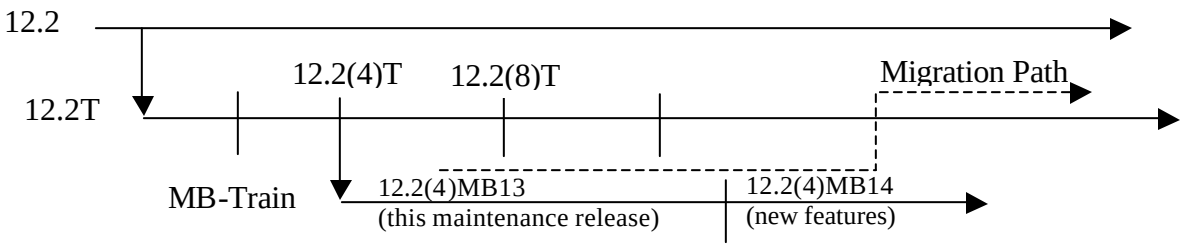
Based upon open industry standards, Cisco's IP Transfer Point (ITP) product is designed for transporting SS7 traffic over IP (SS7oIP) networks. Its design provides significant cost efficiencies and scalability enhancements over legacy SS7 networks.

Using the IETF's M2PA and SCTP protocols, the initial release of the ITP product provided the base functionality to offload SS7 traffic to IP. Subsequent releases provided the full functionality found in typical legacy signaling transfer point (STP) nodes, such as global title translation (GTT), gateway screening and ISUP transport. In addition, support for high speed links (HSL) was added.

In subsequent releases, support was added for the M3UA and SUA protocols which provide signaling gateway functionality between legacy SS7 network and IP-enabled signaling end points (SEP) nodes. Further releases added the ability to function as a MAP-layer gateway for performing GSM SIM authentication/authorization in conjunction with Cisco's Public WLAN solution architecture. Please refer to the product data sheet and white-papers for detailed product features and specifications.

Migration Guide

Diagram 1 below displays Cisco 12.2(4)MB13 release functionality relative to the 12.2T release. This diagram also identifies the recommended migration path.



New Features in Cisco IOS Release 12.2(4)MB13

The release of 12.2(4)MB13 contains the following new product features:

Table 1. Cisco IOS Release 12.2(4)MB13 Features

New Feature	Platform 1	Platform 2	Platform 3	Platform 4
SCTP VIP Offload	7500			

SCTP VIP Offload:

The SCTP VIP offload feature enables the ITP to perform SCTP message processing on the distributed processors of the VIPs, resulting in overall increased SUA/M3UA message/sec processing capacity on the main RSP processors. The net effect is an increased SUA/M3UA processing capacity of approximately 20% on the 7500-based ITP. Reference the ITP datasheet for detailed performance specifications.

Any ED release of software should be utilized first in a test network before being deployed in a production network.

Detailed Information

Operating in a pure TDM mode, the ITP provides compelling cost efficiencies and investment protection as an alternative to adding SS7 capacity via the legacy STP approach. Another option enabled by the ITP is the use of IETF protocols for transporting SS7 over IP. In this case, SS7oIP frees up link capacity on legacy equipment while maintaining stringent levels of reliability and stability that are characteristic of SS7 protocols. SS7oIP will relieve the signaling network from the overwhelming message volume placed on the wireless operators SS7 network in a cost-efficient manner.

The ITP roadmap provides a migration path to converge today's SS7 and IP networks that is comfortable for the most conservative mobile operator. Moreover, mobile data services require a fundamental shift from legacy mobile core networks to high capacity, high-speed IP networks. The transition to SS7oIP will allow for rapid deployment of emerging IP-based intelligent network applications and services.

The strategic value of ITP is to offer a migration path to an all IP-core network. This systematic approach introduces achievable milestones that utilize existing investments while eliminating further capitol expenditures in legacy equipment and facilities.

The Cisco ITP is based on Cisco's native Cisco IOS Software that resides on proven Cisco high-performance router platforms. Three critical differentiating factors include:

- The Cisco ITP offers high-performance routing with state-of-the-art routing protocols, algorithms, and features (for example, quality of service [QoS]). This performance applies to both IP and Signaling System 7 (SS7) packet throughput. This approach enables revenue-generating IP-based applications by deploying Internet Engineering Task Force (IETF) SS7oIP standards.
- The Cisco ITP is a single device that takes advantage of the economies of scale across the breath of IP platforms, a single network management perspective, space occupancy, power demands, and staffing/training.
- The standards (Signaling Transport [Sigtran])-based offering has great synergy with voice-over –IP (VoIP) solutions that require cost-efficient and high-bandwidth transport of signaling of data in mobile or Public Switched Telephone Network (PSTN) VoIP networks.

Support

Cisco IOS software release 12.2(4)MB13 follows the standard Cisco support policy as indicated in the following link:

http://www.cisco.com/en/US/products/products_end-of-life_policy.html

Product Numbers

Cisco IOS Release 12.2(4)MB13 Feature Sets, Images, and Memory Recommendations:

Platform	Software Feature Set	Product Code	Image	Flash	DRAM
SS7/SS7oIP Transport					
2651XM	IP Transfer Point	S26ITP-12204MB13	c2600-itp-mz	32MB	128MB
7500-RSP16	IP Transfer Point	S75ITP-12204MB13	rsp-itpv-mz	128MB	256MB
7200VXR	IP Transfer Point	S72ITP-12204MB13	c7200-itp-mz	128MB	256MB
Signaling Gateway					
2651XM	IP Transfer Point	S26SG-12204MB13	c2600-itp-mz	32MB	128MB
7500-RSP16	IP Transfer Point	S75SG-12204MB13	rsp-itpv-mz	128MB	256MB
7200VXR	IP Transfer Point	S72SG-12204MB13	c7200-itp-mz	128MB	256MB
MAP Gateway					
2651XM	IP Transfer Point	n/a			
7500-RSP16	IP Transfer Point	S75MG-12204MB13	rsp-itpv-mz	128MB	256MB
7200VXR	IP Transfer Point	S72MG-12204MB13	c7200-itp-mz	128MB	256MB

Download Information

Customers can download Cisco IOS Release 12.2(4)MB13 software from Cisco Connection Online (CCO) in the Software Image Library.

http://www.cisco.com/public/sw-center/sw-ios.shtml