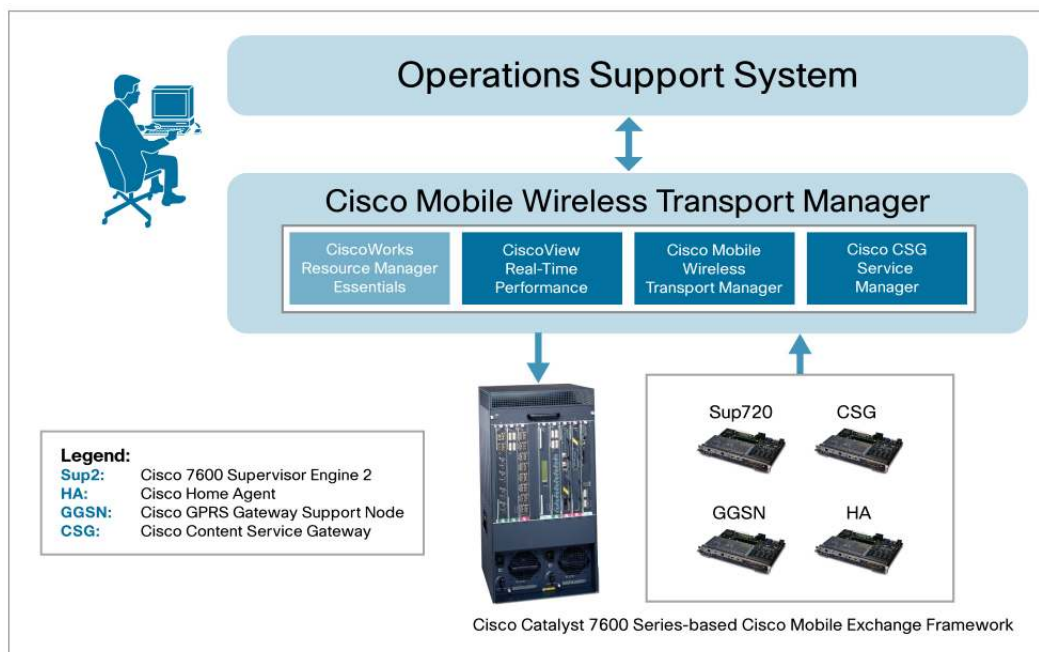# Cisco Content Services Gateway Service Manager 4.1

Product Overview

Cisco[®] announces the availability of the Cisco Content Services Gateway (CSG) Service Manager 4.1, which is part of the Mobile Wireless Transport Manager suite of applications, which complements CiscoWorks LAN Management Solution (LMS) to provide end-to-end management of Cisco mobile Service Exchange Framework (mSEF) (Figure 1). The Mobile Wireless Transport Manager suite addresses the element-management requirements of mobile operators and provides fault and configuration capability as the wireless service delivery networks of mobile operators make the transition from second-generation (2G) circuit-based traffic to 2.5G and third-generation (3G) IP-based services.

Figure 1.   Mobile Wireless Transport Manager Suite

Service Activation

Cisco CSG Service Manager is a feature-rich application for managing the configuration of the Cisco Content Services Gateway. Cisco CSG Service Manager provides service activation, modification, and deactivation of the following configuration components:

- Map
- Policy and filter
- Content
- Rule set
- Billing services
- Billing plans

- Cisco CSG user group

- E-mail post and prepaid support (Internet Message Access Protocol [IMAP] support

Cisco CSG adds user-aware accounting and content-based billing features to the Cisco 7600 Router platforms. Cisco CSG is typically located at the edge of an Internet service provider (ISP) network. It provides IP flow accounting and content accounting by examining HTTP request URLs and header information. Additionally, Cisco CSG gathers username and usage statistics and facilitates differentiated billing for individual transactions.

In this context, a typical IP-based mobile wireless network is built around Cisco mobile Service Exchange Framework, and the Cisco CSG solution allows mobile operators to provide content-based billing to their wireless subscribers.

Integrated with the CiscoWorks LMS and Cisco Mobile Wireless Transport Manager desktop, Cisco CSG Service Manager provides an interface that is similar to other CiscoWorks applications and integrates with the CiscoWorks Resource Manager Essentials (RME) Job Manager to provide a powerful tool for bidirectional device interaction and status. Cisco CSG Service Manager GUIs are intuitive and allow you to easily navigate through the different configuration tasks in a familiar environment. Figure 2 provides an example of the Cisco CSG Service Manager console interface for activating billing services.

Figure 2. Cisco CSG Service Manager Billing Services-Activation Console

Configuration Discrepancy Analysis

Cisco CSG Service Manger also provides the capability of analyzing home agent configuration discrepancies within the defined grouping to proactively flag questionable configurations and prevent service-affecting misconfigurations. The Sync Report dashboard provides an intuitive report card that shows the status of devices out of sync (Figure 3). The dashboard also allows the operator to see the actual commands that are not matching.

Figure 3.   Cisco CSG Service Manager Console for Configuration Discrepancy Analysis
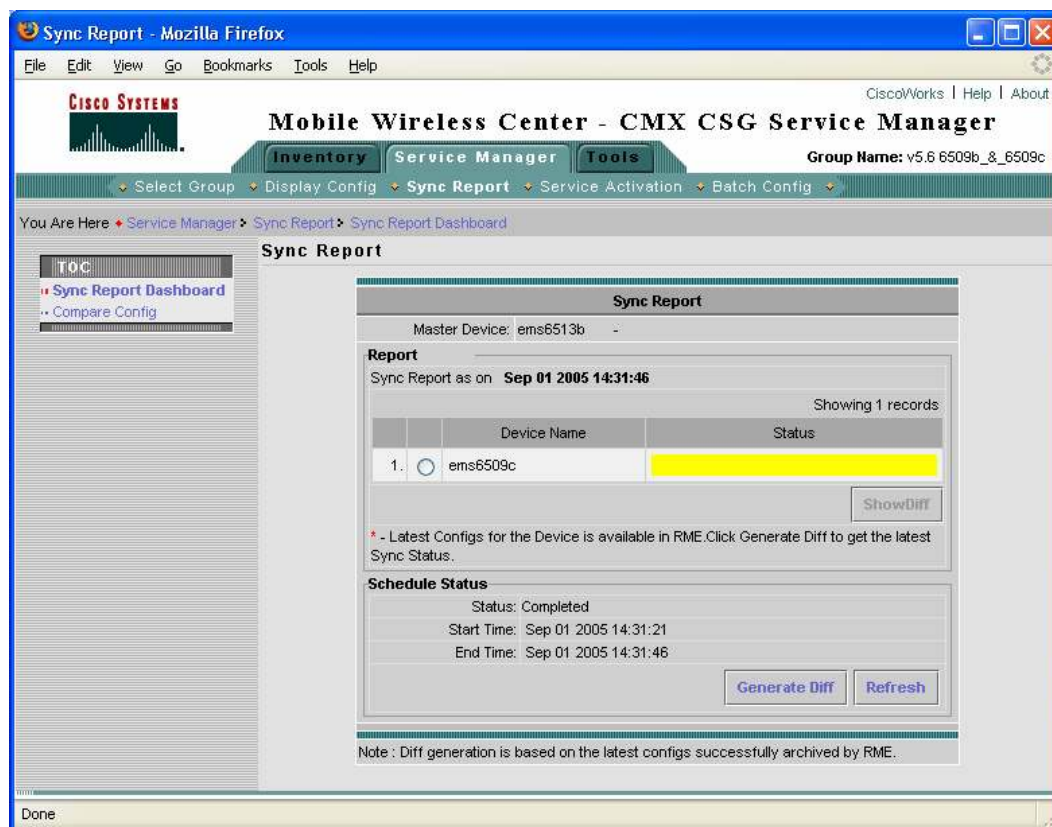

Troubleshooting Dashboard

Cisco CSG Service Manager features a troubleshooting dashboard (Figure 4), which provides predefined key information on:

- Show commands outputs (billing mediation agents, accounting, billing plans, statistics, and so on)
- Debug results (users, timers, record storage, quota, and so on) using RADIUS, IMAP, POP3, User Datagram Protocol (UDP), Wireless Application Protocol (WAP), Extensible Markup Language (XML), and so on
- Syslog messages
- Clearing counters

Figure 4.   Cisco CSG Service Manager Console for Troubleshooting Dashboard
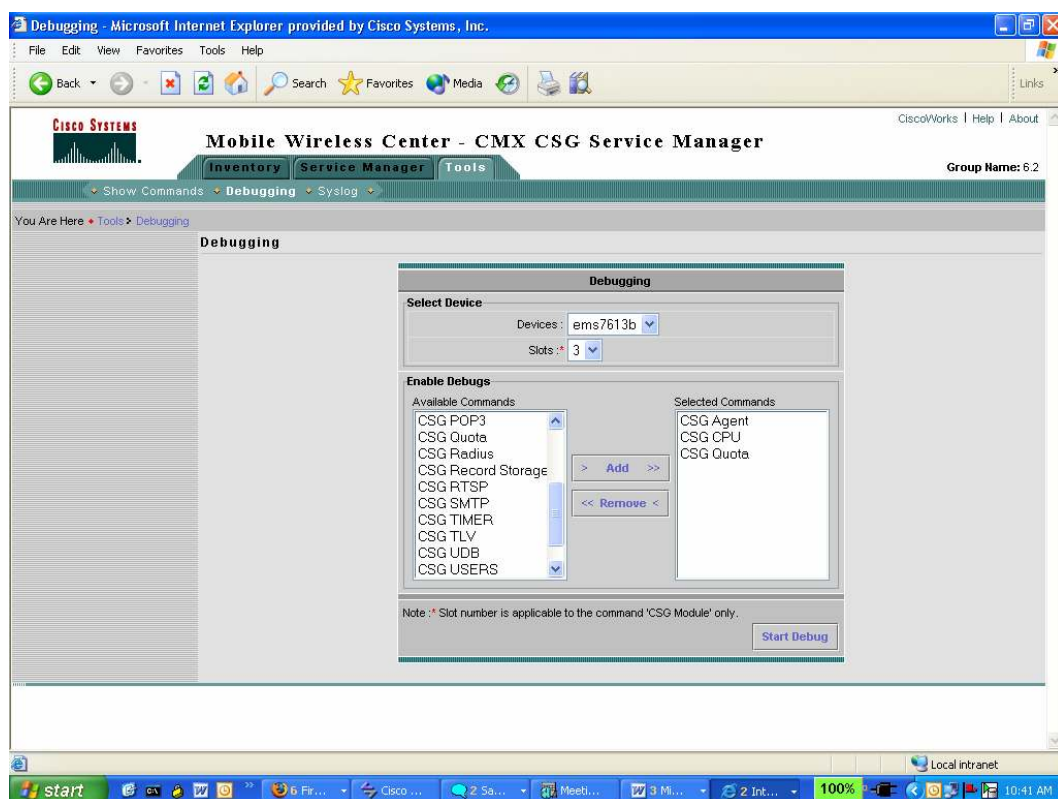
Key Features and Benefits

Table 1 describes the benefits of Cisco CSG Service Manager when deployed as part of an element manager system (EMS) infrastructure.

Table 1. Features and Benefits of Cisco CSG Service Manager

Features	Description	Benefits
Service activation, modification, deactivation	• Automatically activates, modifies, and deactivates services in Cisco CSG server farms: ◦ Mapping ◦ Content ◦ Policy ◦ Rule set ◦ Billing services ◦ Billing plans ◦ Cisco CSG user group ◦ E-mail post and prepaid support (IMAP support)	• Significantly reduces time to activate services • Eliminates syntactic and semantic command-line interface (CLI) errors • Reduces configuration complexity by removing CLI interaction and providing an intuitive device interaction
Discrepancy analysis	• Determines whether configuration deltas exist within the Cisco CSGs defined in the server farm • Provides a report with found discrepancies; shows any diverging Cisco IOS® Software CLIs between Cisco CSGs	• Eliminates service-affecting misconfigurations • Increases productivity by noting questionable configurations • Accelerates time to service • Increases network serviceability
Troubleshooting dashboard	• Allows operators to execute maintenance tasks on Cisco Home Agent • Allows easy selection of tools to view syslogs, show commands output, and debug	• Improves network serviceability by allowing operators to proactively assess Cisco Home Agent status • Simplifies problem identification and troubleshooting

Cisco CSG server farm integration	• Cisco CSG server farm includes groupings of 2 or 4 Cisco 7600 Series chassis with a maximum of 4 Cisco CSG cards of the same version • Automatically downloads configurations in all Cisco CSGs in the server farm	• Reduces complexity • Increases productivity • Eliminates out-of-sync configurations
CiscoWorks LMS interface	• Interacts with CiscoWorks RME Job Manager to download device configurations to Cisco CSGs • The latest Cisco CSG running configuration is automatically uploaded by CiscoWorks RME and then synchronized with Cisco CSG Service Manager • Provides option for running or start-up configuration download	• Helps ensure that Cisco CSG device configurations are synchronized with Cisco CSG Service Manager • Extends RME Job Manager award-wining capability to Cisco CSG configuration tasks • Helps ensure that designated device is the standard against which new Cisco CSG configuration is applied, thus eliminating out-of-sync configurations
Device configuration display	• Provides hierarchical Cisco CSG-only configuration view • Other Cisco IOS configurations unrelated to CSG are filtered out • View configuration of any chassis in server farm	• Operator can focus on Cisco CSG mission-critical tasks without being overwhelmed by the whole device's configuration • Reduces errors by showing only Cisco CSG-related configurations • Eliminates configuration complexity
Batch-mode configuration	• Allows an operator to group multiple instances of the same service activation and download it to all Cisco CSG in the server farm • Operator can cut and paste actual Cisco IOS Software configuration prior to downloading	• Increases productivity by bypassing sequential operations in case service activation of multiple Cisco CSGs is required • Accelerates time to service
System security and user account management	• Uses CiscoWorks user security levels to assign Cisco Home Agent Service Manager predefined user roles • User security levels include Help Desk Approver, Network Operator, Network Administrator, and System Administrator	• Increases system security to restrict potential disruptions to the network or to the application itself • Helps maintain system integrity by preventing accidental or malicious operations by unauthorized users

Product Specifications

Cisco CSG Service Manager supports the following Cisco Mobile Service Exchange Framework devices (Table 2):

Table 2.   Cisco CSG Service Manager Device Support

Supported Device	Cisco IOS Software Release	Cisco Hardware
Cisco CSG 6.2	12.2(18)SXD	CSG card
Cisco CSG 7.0	12.2(18)SXE	CSG card
Cisco Content Service Gateway 2	12.4(11)MD1 12.4(11)MD2	CSG2/SAMI card

System Requirements

Tables 3 and 4 list the system and client requirements for Cisco CSG Service Manager.

Table 3.   Sun Server System Requirements

Requirement Type	Minimum Requirement
System hardware	Dual processor UltraSPARC IIIi at minimum, clock speed 1 GHz, RAM 4 GB
Swap space	8 GB
Disk drives	Dual 80+ GB SCSI or FC-AL drives
Network adapter	100 MB or more recommended
Operating system	Solaris 2.9
CiscoWorks LMS for coexistence	3.0

Table 4.   Client Requirements

Requirement Type	Minimum Requirement
System hardware	• At least a 1 GHz single CPU running Windows 2000 Professional or Windows XP • Sun UltraSPARC IIIi, single CPU 1 GHz or equivalent
Software	• Windows: Internet Explorer 6.0 SP1, Mozilla 1.7 • Solaris: Mozilla 1.7
Memory (RAM)	512 MB
Available disk space	80 GB
Operating environment	• Sun Solaris 2.9 • Windows XP, Windows 2000 Professional, Windows Server 2003
Swap space	Space equal to twice the amount of memory (RAM)
Java Runtime Environment (JRE)	Java Plug-in version 1.4.2_04

Ordering Information

Cisco CSG Service Manager 4.1 and related upgrades for Cisco CSG Service Manager 2.2 customers are available for purchase through regular Cisco sales and distribution channels worldwide. To place an order, visit the Cisco Ordering Home Page.

Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you to protect your network investment, optimize network operations, and prepare the network for new applications to extend network intelligence and the power of your business. For more information about Cisco services, see Cisco Technical Support Services or Cisco Advanced Services.

For More Information

For more information about Cisco CSG Service Manager, visit http://www.cisco.com/go/mwc-cmx, contact your local account representative, or send an e-mail to info-mwc@cisco.com.

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