

## CISCO CONTENT SWITCHING MODULE SOFTWARE VERSION 4.1(1) FOR THE CISCO CATALYST 6500 SERIES SWITCH AND CISCO 7600

### SERIES ROUTER

#### NEW FEATURES

New features of the Cisco® Content Switching Module (CSM) Software Version 4.1(1) for the Cisco Catalyst® 6500 Series Switch and Cisco 7600 Series Router are described in the following sections.

**Offset/length sticky**—This feature allows an administrator to specify the exact bytes of a cookie to use for session persistence. This capability is particularly useful when working with applications that use dynamic cookies where only a portion of the cookie remains constant during a session. In this case, the administrator can specify the static bytes in the cookie to use for persistence. This feature adds enhanced support for Java 2 Platform, Enterprise Edition (J2EE) based applications such as BEA WebLogic and IBM WebSphere among others.

**Insert cookie**—This feature provides the CSM with the capability to insert an administrator configurable cookie into the HTTP header of the first packet returning from the server to the client. The cookie can then be used to ensure that subsequent client requests return to the same real server on the back end. This feature is useful in situations where it is desirable to use cookies for persistence but the server is unable to set cookies.

**IP header insert**—This feature provides the capability to insert information into the IP header, such as the client IP address. This is especially useful in situations where client Network Address Translation (NAT) is used but the original client information is still required by the back-end server for applications such as accounting.

**Back-end Secure Sockets Layer (SSL) solution**—Together with the SSL module for the Cisco Catalyst 6500 Series switches and Cisco 7600 series routers, the CSM provides a complete solution for intelligent load balancing and end-to-end encryption. Because the CSM and SSL modules are housed in the same chassis, this solution provides the capability to make an intelligent load-balancing decision up to Layer 7 and to ensure that the request continues on to the back-end real server encrypted.

Table 1 describes available product numbers for the Cisco CSM.

**Table 1** Cisco CSM Part Numbers

Cisco CSM Software Version	Hardware Part Number	Software Part Number	Hardware Requirements	Native Cisco IOS® Software Release	Added Features
4.1(1)	WS-X6066-SLB-APC	SC6k-4.1.1-CSM	Supervisor Engine IA with Multilayer Switch Feature Card (MSFC) and policy feature card (PFC), Supervisor Engine II with MSFC 2 or Supervisor Engine 720	12.2(17b)SX A for Supervisor 720 and 12.2(17d)SX B for Supervisor IA and Supervisor II	<ul style="list-style-type: none"> <li>• Back-end SSL solution</li> </ul>
4.1(1)	WS-X6066-SLB-APC	SC6k-4.1.1-CSM	Supervisor Engine IA with Multilayer Switch Feature Card (MSFC) and policy feature card (PFC), Supervisor Engine II with MSFC 2 or Supervisor Engine 720	12.1(19)E	<ul style="list-style-type: none"> <li>• Offset/length sticky</li> <li>• Insert cookie</li> <li>• IP header insert</li> <li>• Back-end SSL solution</li> </ul>
3.2(1)	WS-X6066-SLB-APC	SC6k-3.1.1-CSM	Supervisor Engine IA with Multilayer Switch Feature Card (MSFC) and policy feature card (PFC), Supervisor Engine II with MSFC 2 or Supervisor Engine 720	12.1(19)E	<ul style="list-style-type: none"> <li>• Distributed Denial of Service (DDoS) additions</li> <li>• Delayed for Layer 4</li> <li>• User Datagram Protocol probe</li> <li>• Static sticky entry</li> <li>• Show sticky improvements</li> <li>• Firewall load balancing connection reassignment</li> <li>• Extensible Markup Language (XML) Document Type Definition update</li> <li>• MIB updates</li> <li>• Load balancing per packet</li> <li>• Route lookup</li> <li>• TCP fragment support</li> <li>• VLAN increase</li> <li>• Fault tolerant preempt improvements</li> <li>• Static Address Resolution Protocol entry</li> <li>• Jumbo frame support</li> </ul>

**Table 1** Cisco CSM Part Numbers (Continued)

Cisco CSM Software Version	Hardware Part Number	Software Part Number	Hardware Requirements	Native Cisco IOS® Software Release	Added Features
3.1(1)	WS-X6066-SLB-APC	SC6k-3.1.1-CSM	Supervisor Engine IA with Multilayer Switch Feature Card (MSFC) and policy feature card (PFC), Supervisor Engine II with MSFC 2 or Supervisor Engine 720 <i>Supervisor 720 support requires CSM software version 3.1(4) or greater</i>	12.1(13)E	<ul style="list-style-type: none"> <li>Versatile Interface Processor connection watermarks</li> <li>Backup server farm</li> <li>Optional port for probing</li> <li>IP reassembly</li> <li>Scriptable health checks</li> <li>XML API for configuration</li> <li>Simple Network Management Protocol (SNMP)/MIB support</li> <li>Global server load balancing</li> <li>Resource usage display</li> <li>HTTP method parsing</li> <li>Real server names</li> <li>Non-TCP connection state redundancy</li> <li>Reverse IP sticky</li> <li>SSL services module identification</li> <li>Unidirectional idle timeout</li> </ul>
2.1(4)	WS-X6066-SLB-APC	SC6k-2.1.4-CSM	Supervisor Engine IA with MSFC and PFC or Supervisor Engine II with MSFC 2	12.1(8)EX	<ul style="list-style-type: none"> <li>Firewall load balancing</li> <li>Non-TCP load balancing</li> <li>URL hashing</li> <li>HTTP 1.1 persistence</li> <li>Full stateful failover</li> <li>Generic header parsing</li> <li>SNMP server health traps</li> <li>Multiple Cisco CSMs in a chassis</li> <li>VPN/IP Security load balancing</li> </ul>
2.2(4)	WS-X6066-SLB-APC	SC6k-2.2.4-CSM	Supervisor Engine IA with MSFC and PFC or Supervisor Engine II with MSFC 2	12.1(11)E	<ul style="list-style-type: none"> <li>Increased VLAN limit</li> <li>Return code checking</li> <li>In-band health monitoring</li> <li>Configuration pending timeout value</li> <li>Real Time Streaming Protocol support</li> </ul>

**FURTHER INFORMATION**

Cisco CSM Software Version 4.1(1) downloads:

Cisco Systems, Inc.



<http://www.cisco.com/cgi-bin/tablebuild.pl/cat6000-intellother>

Cisco CSM Data Sheet:

[http://www.cisco.com/warp/public/cc/pd/si/casi/ca6000/prodlit/ccsm\\_ds.htm](http://www.cisco.com/warp/public/cc/pd/si/casi/ca6000/prodlit/ccsm_ds.htm)

Cisco CSM Software Version 4.1(1) Installation and Configuration Guide:

<http://www.cisco.com/univercd/cc/td/doc/product/lan/cat6000/cfgnotes/>

Cisco CSM Software Version 4.1(1) Release Notes:

<http://www.cisco.com/cgi-bin/tablebuild.pl/cat6000-intellother>



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