

# **Release Notes for Cisco Router and Security Device Manager 2.4.1**

#### Revised: July 23, 2007 OL-5009-20

These release notes support Cisco Router and Security Device Manager (Cisco SDM) 2.4.1, and Cisco SDM Express 2.4.1. They should be used with the documents listed in the "Related Documentation" section. These release notes are updated as needed.

Cisco SDM 2.4.1 and Cisco SDM Express 2.4.1 are available in seven languages: Chinese (simplified), English, French, German, Italian, Japanese, and Spanish. Installation files for all languages are available on Cisco.com by going to the following link:

http://www.cisco.com/pcgi-bin/tablebuild.pl/sdm

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# Introduction

Cisco SDM is a web-based configuration tool that allows you to configure LAN and WAN interfaces, routing, Network Admission Control (NAC), Network Address Translation (NAT), firewalls, Intrusion Prevention System (IPS), Virtual Private Networks (VPNs), and other features on the router.



Cisco SDM 2.4.1 can be installed on a PC, or in router flash, disk, or slot memory. If you have a router listed in the Hardware Supported section, the English edition of Cisco SDM may be preinstalled in router memory, or may be shipped on a CD with the router.

Cisco SDM Express allows you to give a router a basic LAN, WAN, firewall and NAT configuration. The English edition may be installed in router memory.

# **System Requirements**

This section contains Cisco SDM 2.4.1 system requirements.

## **Memory Requirements**

Table 1 shows how much memory is required to support Cisco SDM 2.4.1 and related applications.

Application	Chinese (S)	English	French	German	Italian	Japanese	Spanish
Cisco SDM	7.86 MB	7.37 MB	7.97 MB	7.89 MB	7.80 MB	7.92 MB	7.83 MB
Cisco SDM Express	2.45 MB	2.33 MB	2.44 MB	2.46 MB	2.44 MB	2.47 MB	2.46 MB
Cisco SDM installed on a PC	8.38 MB	7.89 MB (	8.49 MB	8.41 MB	8.33 MB	8.44 MB	8.36 MB
Wireless Management application	1.86 MB	1.86 MB	1.87 MB	1.87 MB	1.87 MB	1.87 MB	1.87 MB

#### Table 1 Cisco SDM Memory Requirements

Table 4 on page 13 lists the files that are included with Cisco SDM, Cisco SDM Express, and the Wireless Management application.

## **Hardware Supported**

This section lists the routers that Cisco SDM supports, by series.



Cisco SDM does not support Telco/CO router models.

Cisco SB100 series:

- Cisco SB101
- Cisco SB106
- Cisco SB107

Cisco 800 series:

- Cisco 831
- Cisco 836
- Cisco 837
- Cisco 851
- Cisco 857

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- Cisco 871
- Cisco 876
- Cisco 877
- Cisco 877-M
- Cisco 877W-M
- Cisco 878

Cisco SDM is supported on the following Cisco 1700 series:

- Cisco 1701
- Cisco 1710
- Cisco 1711
- Cisco 1712
- Cisco 1721
- Cisco 1751
- Cisco 1751-v
- Cisco 1760
- Cisco 1760-v

Cisco 1800 series:

- Cisco 1801
- Cisco 1801-M
- Cisco 1801W-M
- Cisco 1802
- Cisco 1803
- Cisco 1811
- Cisco 1812
- Cisco 1812W-P
- Cisco 1841

Cisco 2600 series:

- Cisco 2610XM
- Cisco 2611XM
- Cisco 2620XM
- Cisco 2621XM
- Cisco 2650XM
- Cisco 2651XM
- Cisco 2691

Cisco 2800 series:

- Cisco 2801
- Cisco 2811
- Cisco 2821

• Cisco 2851

Cisco 3600 series:

- Cisco 3620
- Cisco 3640
- Cisco 3640A
- Cisco 3661
- Cisco 3662

Cisco SDM is supported on the following Cisco 3700 series:

- Cisco 3725
- Cisco 3745

Cisco SDM is supported on the following Cisco 3800 series:

- Cisco 3825
- Cisco 3845

Cisco SDM is supported on the following Cisco 7000 series:

- Cisco 7204VXR
- Cisco 7206VXR
- Cisco 7301

#### **Supported Adapters, Cards and Network Modules**

Network modules:

- NM-1E
- NM-4E
- NM-4T
- NM-2W
- NM-1E2W
- NM-1FE2W
- NM-1FE2W-V2
- NM-1FE-FX-V2
- NM-2E2W
- NM-2FE2W
- NM-2FE2W-V2
- NM-1FE-FX
- NM-1FE-TX
- NM-4A/S (synchronous only)
- NM-8A/S (synchronous only)
- NM-CIDS-K9
- NM-16ESW

- NM-16ESW-1GIG
- NM-16ESW-PWR
- NM-16ESW-PWR-1GIG
- NM-36ESW
- NMD-36ESW-2GIG
- NMD-36ESW-PWR
- NMD-36ESW-PWR-2GIG

Cisco SDM supports only Ethernet configuration on the following network modules:

- NM-1E1R2W
- NM-1FE1R2W
- NM-1FE1CE1U
- NM-1FE2CE1B
- NM-1FE1CE1B
- NM-1FE2CE1U
- NM-1FE1CT1
- NM-1FE2CT1
- NM-1FE1CT1-CSU
- NM-1FE2CT1-CSU

EtherSwitch Service Network Modules:

- NME-16ES-1G-P
- NME-X-23ES-1G-P
- NME-XD-24ES-1S-P
- NME-XD-48ES-2S-P

WAN interface cards:

- WIC-1T
- WIC-2T
- WIC-2A/S (Frame Relay, PPP, HDLC, no asynchronous)
- WIC-1DSU-T1
- WIC-1ADSL
- WIC-1ENET
- WIC-1SHDSL
- WIC-1DSU-T1-V2
- WIC-1B-S/T
- WIC-1B-S/T-V3
- WIC-1AM
- WIC-2AM
- WIC-4ESW
- WIC-1SHDSL-V2

- WIC-1SHDSL-V3
- WIC 1ADSL-DG
- WIC 1ADSL-I-DG

High-speed WAN interface cards (HWICs):

- HWIC-4T
- HWIC-4A/S
- HWIC-8A/S-232
- HWIC-4ESW
- HWICD-9ESW
- HWIC-AP-G-X
- HWIC-AP-AG-X
- HWIC-ADSL-B/ST
- HWIC-ADSLI-B/ST
- HWIC-1ADSL
- HWIC-1ADSLI
- HWIC-1ADSL-M

Advanced integration modules (AIMs):

- AIM-VPN/BP
- AIM-VPN/BP II
- AIM-VPN/BPII-PLUS
- AIM-VPN/HP
- AIM-VPN/HP II
- AIM-VPN/HPII-PLUS
- AIM-VPN/EP
- AIM-VPN/EP II
- AIM-VPN/EPII-PLUS
- AIM-VPN/SSL-1
- AIM-VPN/SSL-2
- AIM-VPN/SSL-3

Port adapters on Cisco 7000 family routers:

- PA-2FE-TX
- PA-2FE-FX
- PA-8E
- PA-4E

Network Processing Engines and Network Service Engines on Cisco 7000 family routers.

- NPE-225
- NPE-400
- NPE-G1

- NPE-G2
- NSE-1

Service adapters on Cisco 7000 family routers:

- SA-VAM
- SA-VAM2
- SA-VAM2+
- C7200-VSA

Cisco SDM also supports the MOD-1700VPN.

#### **PC System Requirements**

Cisco SDM 2.4.1 is designed to run on a personal computer that has a Pentium III or faster processor.

## **Software Supported**

This section describes Cisco SDM 2.4.1 software requirements.

#### **Cisco IOS Releases**

Cisco SDM 2.4.1 is compatible with the Cisco IOS releases listed in Table 2.

Note

Cisco SDM 2.4.1 supports the Cisco IOS Intrusion Prevention System (Cisco IOS IPS). In order to be able to use Cisco SDM to configure the Cisco IOS IPS software, the router must run Release 12.3(8)T4 or a later release. Later Cisco IOS releases support additional Cisco IOS IPS functionality. Table 3 lists the Cisco IOS IPS feature history by Cisco IOS release.

Table 2         Cisco SDM-Supported Routers and Cisco IOS Rele	ases
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Cisco SDM-Supported Routers	<b>Cisco SDM-Supported Cisco IOS Releases</b>			
Cisco SB101	• 12.3(8)YG			
Cisco SB106	• 12.4(2)T or later releases			
Cisco SB107				
Cisco 831	• 12.2(13)ZH or later releases			
Cisco 837	• 12.3(2)XA or later releases			
	• 12.3(2)T or later releases			
	• 12.4(2)T or later releases			
Cisco 836	• 12.2(13)ZH or later releases			
	• 12.3(2)XA or later releases			
	• 12.3(4)T or later releases			
	• 12.4(2)T or later releases			

Cisco SDM-Supported Routers	<b>Cisco SDM-Supported Cisco IOS Releases</b>
Cisco 851	• 12.3(8)YI
Cisco 857	• 12.4(2)T or later releases
Cisco 871	• 12.3(8)YI
Cisco 876	• 12.4(2)T or later releases
Cisco 877 Cisco 878	
	- 12 2/12)7U - 14
Cisco 1701	• 12.2(13)ZH or later releases
	• 12.3(2)XA or later releases (Cisco SDM does not support Cisco IOS release 12.3(2)XF.)
	• 12.3(4)T or later releases
	• 12.4(2)T or later releases
Cisco 877M	• 12.4(11)XJ or later
Cisco 877W-M	
Cisco 1711	• 12.2(15)ZL or later releases
Cisco 1712	• 12.3(2)XA or later releases (Cisco SDM does not support Cisco IOS release 12.3(2)XF.)
	• 12.4(2)T or later releases
Cisco 1710	• 12.2(13)ZH or later releases
Cisco 1721 Cisco 1751	• 12.3(2)XA or later releases (Cisco SDM does not support Cisco IOS release 12.3(2)XF.)
Cisco 1751-v Cisco 1760	• 12.2(13)T3 or later releases
Cisco 1760-v	• 12.3(2)T or later releases
	• 12.3(1)M or later releases
	• 12.2(15)ZJ3 (not available for the Cisco 1710 or Cisco 1721)
	• 12.4(2)T or later releases
Cisco 1801M	• 12.4(11)XJ or later
Cisco 1801W-M	
Cisco 1801	• 12.3(8)YI
Cisco 1802	• 12.4(2)T or later releases
Cisco 1803	
Cisco 1811	
Cisco 1812	• 12.3(8)YH or later releases
	• 12.4(2)T or later releases
Cisco 1812W-P	• 12.4(11)XJ or later
Cisco 1841	• 12.3(8)T4 or later releases
	• 12.4(2)T or later releases

#### Table 2 Cisco SDM-Supported Routers and Cisco IOS Releases (continued)

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Cisco SDM-Supported Routers	<b>Cisco SDM-Supported Cisco IOS Releases</b>
Cisco 2610XM	• 12.2(11)T6 or later releases
Cisco 2611XM	• 12.3(2)T or later releases
Cisco 2620XM Cisco 2621XM	• 12.3(1)M or later releases
Cisco 2650XM	• 12.3(4)XD
Cisco 2651XM	• 12.2(15)ZJ3
Cisco 2691	<ul> <li>12.4(2)T or later releases</li> </ul>
Cisco 2801	• 12.3(8)T4 or later releases
Cisco 2811	• 12.4(2)T or later releases
Cisco 2821 Cisco 2851	
Cisco 3640	• 12.2(11)T6 or later releases
Cisco 3661	• 12.3(2)T or later releases
Cisco 3662	• 12.3(1)M or later releases
	• 12.3(4)XD
	• 12.2(15)ZJ3
	• 12.4(2)T or later releases
Cisco 3620	• 12.2(11)T6 or later releases
	• 12.3(1)M or later releases
Cisco 3640A	• 12.2(13)T3 or later releases
	• 12.3(2)T or later releases
	• 12.3(1)M or later releases
	• 12.3(4)XD
	• 12.2(15)ZJ3
	• 12.4(2)T or later releases
Cisco 3725	• 12.2(11)T6 or later releases
Cisco 3745	• 12.3(2)T or later releases
	• 12.3(1)M or later releases
	• 12.3(4)XD
	• 12.2(15)ZJ3
	• 12.4(2)T or later releases
Cisco 3825	• 12.3(11)T or later releases
Cisco 3845	• 12.4(2)T or later releases

 Table 2
 Cisco SDM-Supported Routers and Cisco IOS Releases (continued)

Cisco SDM-Supported Routers	<b>Cisco SDM-Supported Cisco IOS Releases</b>				
Cisco 7204VXR	• 12.3(2)T or later releases				
Cisco 7206VXR	• 12.3(1)M or later releases				
	• 12.4(2)T or later releases				
	Cisco SDM does not support B, E, or S train releases on the Cisco 7000 routers.				
Cisco 7301	• 12.3(2)T or later releases				
	• 12.3(3)M or later releases				
	• 12.4(2)T or later releases				
	Cisco SDM does not support B, E, or S train releases on the Cisco 7000 routers.				

#### Table 2 Cisco SDM-Supported Routers and Cisco IOS Releases (continued)

Table 3 shows the Cisco IOS IPS feature history, and lists the Cisco IOS releases that offered each set of features, beginning with the latest release. This information is available in the Cisco IOS IPS Deployment Guide available at the following link.

http://www.cisco.com/en/US/products/ps6634/prod\_white\_papers\_list.html

Cisco IOS Release	<b>Cisco IOS IPS Features or Improvements</b>			
12.4(11)T2	Support for a versioned-based signature definition format used by Cisco appliance-based IPS products, and the predefined Basic and Advanced signature categories.			
12.4(6)T	Session setup rate performance improvements			
12.4(3a)/12.4(4)T	String engine memory optimization			
12.4(4)T	MULTI-STRING engine support for Trend Labs and Cisco Incident Control System			
	Performance improvements			
	Distributed Threat Mitigation (DTM) support			
12.4(2)T	Layer 2 transparent intrusion prevention system (IPS) support			

#### Table 3 Feature History of Cisco IOS IPS

Cisco IOS Release	<b>Cisco IOS IPS Features or Improvements</b>			
12.3(14)T	Support for three string engines (STRING.TCP, STRING.UDP, and STRING.ICMP)			
	Support for two new local shunning event actions: denyAttackerInline and denyFlowInline			
12.3(8)T	Support for Security Device Event Exchange (SDEE) protocol			
	Support for ATOMIC.IP, ATOMIC.ICMP, ATOMIC.IPOPTIONS, ATOMIC.UDP, ATOMIC.TCP, SERVICE.DNS, SERVICE.RPC, SERVICE.SMTP, SERVICE.HTTP, SERVICE.FTP, and OTHER engines			

#### Table 3 Feature History of Cisco IOS IPS

#### **Determining the Cisco IOS Release**

To determine the release of Cisco IOS software currently running on your Cisco router, log in to the router and enter the **show version** EXEC command. The following sample output from the **show version** command indicates the Cisco IOS release on the second output line:

```
Router> show version
```

Cisco Internetwork Operating System Software IOS (tm) C1700 Software (c1700-k8sv3y7-mz) Version 12.2(13)ZH

#### Web Browser Versions and Java Runtime Environment Versions

Cisco SDM 2.4.1 can be used with the following browsers:

- Firefox 1.0.6 and later versions
- Internet Explorer 5.5 and later versions
- Netscape 7.1 and 7.2

Cisco SDM 2.4.1 requires Sun Java Runtime Environment (JRE). The following versions are supported:

- JRE 1.5\_09
- JRE1.4.2\_08
- JRE 1.5.0\_06
- JRE 1.5.0\_07

Although the Cisco SDM application requires JRE to run, the Cisco SDM Express application included with Cisco SDM can run under the native Java Virtual Machine in the supported browsers, and also JRE.

#### **PC Operating System Versions**

The English edition of Cisco SDM 2.4.1 supports operation on the following operating systems:

- Microsoft Windows XP Professional
- Microsoft Windows 2003 Server (Standard Edition)
- Microsoft Windows 2000 Professional with Service Pack 4



Windows 2000 Advanced Server is not supported.

Localized editions of Cisco SDM 2.4.1 can be run on the English edition of these operating systems by going to **Start > Control Panel > Regional and Language Options**, and changing the settings to values compatible with the edition of Cisco SDM that you are running. For more information, refer to the document *Running Non English Editions of SDM on English-Language Operating Systems* available at the same link.

Localized editions of Cisco SDM 2.4.1 support operation on the following localized operating systems:

- Microsoft Windows XP Professional with Service Pack 2 or later
- Microsoft Windows 2000 Professional with Service Pack 4 or later

# **New and Changed Information**

This section contains information that is new or changed since the previous version.

#### **New Hardware Supported in Cisco SDM 2.4.1**

Cisco SDM 2.4.1 supports the following new hardware:

- Cisco 877-M
- Cisco 877W-M
- Cisco 1801-M
- Cisco 1801W-M
- Cisco 1812W-P
- HWIC-1ADSL-M

#### **New Features Supported in Cisco SDM 2.4.1**

Cisco SDM 2.4.1 supports all the features available in Cisco SDM 2.4. It is available in the following language editions:

- Chinese (simplified) edition—available in the file SDM-V241-zh.zip
- English edition—available in the file SDM-V241.zip
- French edition—available in the file SDM-V241-fr.zip
- German edition—available in the file SDM-V241-de.zip
- Italian edition—available in the file SDM-V241-it.zip
- Japanese edition—available in the file SDM-V241-ja.zip
- Spanish edition—available in the file SDM-V241-es.zip

All editions of Cisco SDM are available on Cisco.com by going to the following link:

http://www.cisco.com/pcgi-bin/tablebuild.pl/sdm

## **Cisco SDM Files**

This section describes the files used in Cisco SDM 2.4.1. Table 4 lists the name and description of each file. Table 5 on page 13 lists the files sizes according to language.

 Table 4
 Cisco SDM File Descriptions

Filename	Description
common.tar	Cisco SDM and Cisco SDM Express support file
es.tar	Cisco SDM Express application file
home.shtml	Cisco SDM and Cisco SDM Express support file
home.tar	Cisco SDM and Cisco SDM Express support file
sdmconfig-modelnum.cfg	Default configuration file
For example:	
sdmconfig-180x.cfg	
sdm.tar	Cisco SDM application file
sdmips.sdf	File created when Cisco SDM is used to modify Cisco IOS IPS signatures.
securedesktop-ios-3.1.1.45- k9.pkg	Cisco Secure Desktop client software for SSL VPN clients.
sslclient-win-1.1.3.173.pkg	Full tunnel client software for SSL VPN clients
wlanui.tar	Wireless Management Application
128MB.sdf	Signature Definition File (SDF) used by Cisco IOS IPS
256MB.sdf	Signature Definition File (SDF) used by Cisco IOS IPS

#### Table 5 Cisco SDM File Sizes by Language Edition

File Name	Chinese (S)	English	French	German	Italian	Japanese	Spanish
common.tar	1.40 MB	1.40 MB	1.41 MB				
es.tar	954 KB	841 KB	946 KB	969 KB	944 KB	981 KB	969 KB
home.shtml	1.09 KB	1.01 KB	1.12 KB	1.09 KB	1.11 KB	1.13 KB	1.11 KB
home.tar	110 KB	110 KB	111 KB	112 KB	111 KB	111 KB	111 KB
sdmconfig-mdlnum.cfg	1.17-2.42	1.17-2.42	1.17-2.42	1.17-2.42	1.17-2.42	1.17-2.42	1.17-2.42
For example:	KB						
sdmconfig-180x.cfg							
sdm.tar	6.34 MB	5.85 MB	6.45 MB	6.37 MB	6.28 MB	6.40 MB	6.31
sdm.ips	variable size						
securedesktop-ios-3.1.1. 45-k9.pkg	1.61 MB						
sslclient-win-1.1.3.173.p kg	406 KB						

File Name	Chinese (S)	English	French	German	Italian	Japanese	Spanish
wlanui.tar	1.86 MB	1.86 MB	1.87 MB	1.87 MB	1.87 MB	1.87 MB	1.87 MB
128MB.sdf	515 KB	515 KB	515 KB	515 KB	515 KB	515 KB	515 KB
256MB.sdf	775 KB	775 KB	775 KB	775 KB	775 KB	775 KB	775 KB

Table 5 Cisco SDM File Sizes by Language Edition

# **Installation Notes**

This section contains important information regarding installation and upgrades to Cisco SDM 2.4.1.

# Cisco 1700 Routers Running Cisco ITS/Cisco CallManager Express and Cisco IOS Release 12.2(13)T

If you are installing Cisco SDM 2.4.1 on a router that already has the Internet Telephony Service (ITS) or Cisco CallManager Express application installed in flash memory, you may exceed the number of files allowed in flash memory by installing Cisco SDM 2.4.1. Cisco 1700 routers using Cisco IOS Release 12.2(13)T cannot have more than 32 files in flash memory.

Before installing Cisco SDM 2.4.1, you must delete any unneeded files from flash memory. If no files can be deleted, do not install it on the router.

## Downloading Cisco SDM from Cisco.com and Installing It on the Router

If Cisco SDM 2.4.1 is not currently installed on the router, see *Downloading and Installing Cisco Router and Security Device Manager* to learn how to download Cisco SDM from Cisco.com and install it on the router. To obtain this document, go to the following URL:

http://www.cisco.com/go/sdm

In the Support box, click Install and Upgrade. Then click Install and Upgrade Guides > Downloading and Installing Cisco Router and Security Device Manager.

## **Upgrading to a New Cisco SDM Version**

If a version of Cisco SDM later than version 1.0 is already installed on the router, use the Cisco SDM automatic update feature to install the latest files on the router. Cisco SDM automatically checks Cisco.com for more recent versions of Cisco SDM, downloads them to your PC, removes the old Cisco SDM files from memory, runs the **squeeze flash**: command if necessary, and copies the latest files to the router. The update feature is available from the Tools menu. Choose **Tools** > **Update SDM** > **From Cisco.com**.

If you are currently using Cisco SDM 1.0, you must download the file SDM-V*nn*.zip at the following URL:

http://www.cisco.com/cgi-bin/tablebuild.pl/sdm

See *Downloading and Installing Cisco Router and Security Device Manager (SDM)* to learn how to install SDM and all related files on the router at the following URL:

#### http://www.cisco.com/go/sdm

In the Support box, click Install and Upgrade. Then click Install and Upgrade Guides > Downloading and Installing Cisco Router and Security Device Manager.

## **Uninstalling Cisco SDM Files**

If you want to remove Cisco SDM from flash memory or from a router disk file system, you can do so by logging onto the router and completing the following steps in EXEC mode:

**Step 1** Change to the directory in which the Cisco SDM files are located.

If the router has a flash file system, use the following command:

router# cd flash:

If the router has a disk file system, use the following command:

router# cd diskN

Replace *N* with the actual number of the disk. Use the **slot** keyword instead of the **disk** keyword if necessary.

Step 2 Use the delete command to remove the Cisco SDM files. The example below deletes the file sdm.tar:

```
router# delete sdm.tar
Delete filename [sdm.tar]?
Delete flash:sdm.tar? [confirm]
```

Press **Return** to confirm the deletion.

- **Step 3** Use the **delete** command to remove the remaining Cisco SDM files. The "Cisco SDM Files" section on page 13 lists the files used.
- **Step 4** Reclaim memory space by using the **squeeze flash:** command:

router# squeeze flash:

It is not necessary to use the **squeeze flash:** command on DOS-based file systems.

Cisco SDM version 2.1 or later can be installed on your PC. To remove Cisco SDM from your PC, complete the following steps:

- Step 1 Click Start > Program> Cisco Systems > Cisco SDM > Uninstall to launch the Uninstall program.
- **Step 2** When the message "Do you want to remove the selected applications and all of its features?" appears, click **Yes**.
- **Step 3** When the Uninstallation Complete screen is displayed, click **Finish**.

# Limitations and Restrictions

This section describes restrictions and limitations that may apply to Cisco SDM.

## **Cisco SDM Minimum Screen Resolution**

Cisco SDM requires a screen resolution of at least 1024 x 768.

## Restrictions for Cisco 7204VXR, Cisco 7206VXR, and Cisco 7301 Routers

The following restrictions apply to Cisco SDM running on Cisco 7204VXR, Cisco 7206VXR, and Cisco 7301 Routers:

- The Cisco SDM Express application is not supported. You must use the Cisco IOS CLI to give the router an initial configuration that will enable you to connect to the router using a browser.
- WAN configuration is not supported. Cisco SDM supports configuration of Ethernet and Fast Ethernet interfaces.
- The Cisco SDM Reset feature is not available.
- No SDM-default configuration file is supplied. To run Cisco SDM, you must provide a configuration that includes the commands necessary to support operation of Cisco SDM.

The document Cisco Router and Security Device Manager (SDM) User Guide for the Cisco 7200 VXR and Cisco 7301 Routers describes how to give the router a configuration that supports Cisco SDM and how to start Cisco SDM on Cisco 7000 Family routers.

## **Important Notes**

This section contains important information for Cisco SDM. It contains the following sections:

- Cisco SDM May Not Operate with Custom Configuration File
- Cisco SDM Merge and Replace Configuration Functions Fail Under Some Conditions, page 18
- Cisco SDM Security Dashboard May Display Threats Unrelated to Your Cisco IOS IPS Installation, page 18
- Cisco SDM May not Launch Using IP Address of SSL VPN Gateway, page 18
- Cisco SDM IPS User Guide Discontinued for Cisco SDM 2.2, page 19
- Cisco SDM May Lose Connection to Network Access Device, page 19
- Cisco SDM on PC May Not Launch under Windows XP with Service Pack 2, page 19
- Popup Blockers Disable Cisco SDM Online Help, page 19
- Disable Proxy Settings, page 20
- Routers Shipped with Cisco SDM Do Not Execute the Standard Cisco IOS Startup Sequence, page 20
- Unable to Perform "squeeze flash:" Operation, page 21
- Security Alert Dialog May Remain After Cisco SDM Launches, page 22

#### **Cisco SDM May Not Operate with Custom Configuration File**

If you load a custom configuration file on the router using Cisco Configuration Express or any other process, you may remove Command Line Interface (CLI) commands that Cisco SDM operation requires amd prevent it from operating. Cisco SDM requires the following basic configuration in order to connect to the router and manage it.

- An http or https server must be enabled with local authentication.
- A local user account with privilege level 15 and accompanying password must be configured.
- Vty line with protocol ssh/telnet must be enabled with local authentication. This is needed for interactive commands.
- An http timeout policy must be configured with the parameters shown in the following example to avoid a known launch issue with SDM.
- The PC on which SDM is to run and the interface through which SDM will be launched must be configured with IP addresses from the same subnet.

The following example shows a configuration that contains the CLI commands Cisco SDM requires in order to operate.

The following example shows a configuration that contains the CLI commands Cisco SDM requires in order to operate.

```
hostname yourname
1
logging buffered 51200 warnings
!
username cisco privilege 15 secret 0 cisco
ip domain-name yourdomain.com
!
interface FastEthernet0
description $ETH-LAN$$ETH-SW-LAUNCH$$INTF-INFO-10/100 Ethernet$
ip address 10.10.10.1 255.255.255.248
description PC must be on the same subnet as this interface
no shutdown
ip http server
ip http secure-server
ip http authentication local
ip http timeout-policy idle 60 life 86400 requests 10000
line vty 0 4
privilege level 15
login local
transport input telnet
transport input telnet ssh
line vty 5 15
privilege level 15
login local
transport input telnet
transport input telnet ssh
```

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## **Cisco SDM Merge and Replace Configuration Functions Fail Under Some Conditions**

If you attempt to merge configuration changes made using the Cisco SDM Config Editor feature, or replace the running configuration with a configuration from the Config Editor, the router configuration will not be changed if there is a network device with a Network Address Translation (NAT) IP address, or a cache engine in the connection between the PC and the router. If you need to make changes to the router configuration that you would normally make using the Cisco SDM Config Editor, use the Cisco IOS CLI instead. This is caveat CSCsj21989.

## **Cisco SDM Security Dashboard May Display Threats Unrelated to Your Cisco IOS IPS Installation**

Some (or all) of the top threats you obtain using the Cisco SDM Security Dashboard may not pertain to your Cisco IOS IPS installation. After you deploy the signatures applicable to the top threats displayed by the Cisco SDM Security Dashboard, the dashboard may still display some (or all) top threats with a red icon because applicable signatures could not be found. Those remaining top threats are unrelated to your Cisco IOS IPS installation and not a danger to your router running Cisco IOS software.

## **Cisco SDM May not Launch Using IP Address of SSL VPN Gateway**

This information provides more information about the caveat CSCek33306. When Cisco SDM attempts to connect to a router with a SSL VPN gateway configured using the Cisco IOS CLI, it might not launch from the IP address used by that gateway if the CLI statements necessary for Cisco SDM access are not included.

For example, if you have configured a SSL VPN connection on the interface Fe 0/0 with the gateway IP address 10.10.10.1, and the gateway name MySSLVPN, you may not be able to launch Cisco SDM using that IP address.

To be able to launch Cisco SDM using that IP address, add the following Cisco IOS CLI commands:

```
Router# config t
Router(config)# interface loopback next-available-loopback-number
Router(config-if)# description Do not delete - SDM SSLVPN generated interface
Router(config-if)# ip address 192.168.1.1 255.255.255.252
Router(config-if)# no shutdown
Router(config-if)# ip nat inside
Router(config)# ip nat inside source static tcp 192.168.1.1 443 10.10.10.1 4443
Router(config)# router(config)# webvpn gateway MySSLVPN
Router(config)# router(config)# http-redirect port 80
Router(config) # interface FastEthernet 0/0
Router(config-if)# ip nat outside
Router(config-if)# exit
```

After adding these commands, you can launch Cisco SDM by entering the following IP address and port in the browser:

https://10.10.10.1:4443

If you remove the SSL VPN gateway that was modified for Cisco SDM access, you must remove the loopback interface and NAT rule that you created to allow access in the first place. Enter the commands shown in the description of caveat CSCek38259.

## **Cisco SDM IPS User Guide Discontinued for Cisco SDM 2.2**

The Cisco SDM IPS application has been merged with Cisco SDM 2.2. Instructions for using IPS are included in the Cisco Router and Security Device Manager Version 2.2 User's Guide and later versions of the user's guide. No Cisco SDM IPS User's Guide has been published for this release.

## **Cisco SDM May Lose Connection to Network Access Device**

This note concerns the NAC feature.

If the PC used to invoke Cisco SDM returns a posture state (Healthy, Infected, Checkup, Quarantine, or Unknown) and if the group policy on the ACS server attached to the posture token assigned to the PC has a redirect URL configured, the connection between Cisco SDM and the router acting as the Network Access Device (NAD) may be lost. The same problem can occur if an exception list entry attached to a policy with a redirect URL is configured with the IP address or MAC address of the PC.

If you try to reinvoke Cisco SDM from this PC, you will not be able to do so because the browser will be redirected to the location specified in the redirect URL.

There are two workarounds for this problem:

- Ensure that the PC that you use to invoke Cisco SDM attains a posture token which has an associated group policy on the ACS server that is not configured with a redirect URL.
- Alternatively, use Cisco SDM to create a NAC exception list entry with the IP address or MAC address of the PC you use to invoke Cisco SDM. Note that the exception list entry created for the PC should be associated to an exception policy which does not have a redirect URL configured in it.

For more information, see the links in the Cisco SDM NAC online help pages.

## **Cisco SDM on PC May Not Launch under Windows XP with Service Pack 2**

When Cisco SDM is installed on a PC running Windows XP with Service Pack 2, Internet Explorer may display HTML source code when you attempt to launch Cisco SDM. To fix this problem, go to **Tools** > **Internet Options** > **Advanced**. Then scroll to the Security section, check **Allow active content to run in files on my computer**, and click **Apply**. Then relaunch Cisco SDM.

#### Popup Blockers Disable Cisco SDM Online Help

If you have enabled popup blockers in the browser you use to run Cisco SDM, online help will not appear when you click the help button. To prevent this from happening, you must disable the popup blocker when you run Cisco SDM. Popup blockers may be enabled in search engine toolbars, or may be standalone applications integrated with the web browser.

Microsoft Windows XP with Service Pack 2 blocks popups by default. In order to turn off popup blocking in Internet Explorer, go to **Tools > Pop-up Blocker > Turn Off Pop-up Blocker**.

If you have not installed and enabled third-party pop up blockers, go to **Tools >Internet Options > Privacy**, and uncheck the **Block popups** checkbox.

In Firefox 1.5 and later versions, click Tools > Options > Content. Uncheck Block pop-up windows.

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## **Disable Proxy Settings**

Cisco SDM will not start when run under Internet Explorer with proxy settings enabled. To correct this problem, choose **Internet Options** from the Tools menu, click the **Connections** tab, and then click the **LAN settings** button. In the LAN Settings window, disable the proxy settings.

## Routers Shipped with Cisco SDM Do Not Execute the Standard Cisco IOS Startup Sequence

Because a default configuration file is provided on a router shipped with Cisco SDM, the router *will not execute the standard Cisco IOS startup sequence*. If you are expecting to use the Cisco IOS setup utility, a TFTP/BOOTP configuration download, or other features available through the standard Cisco IOS startup, you will need to erase the configuration file.

To erase the existing configuration and take advantage of the Cisco IOS startup sequence, perform the following steps. This will leave Cisco SDM on the router if you later decide you want to use it, but you will need to configure the router manually before you can begin using Cisco SDM. Please see the router quick start guide and to the SDM FAQ for information about the minimum configuration required for using Cisco SDM. This document is available at:

http://www.cisco.com/go/sdm

- **Step 1** Connect the light blue console cable, included with the router, from the blue console port on the router to a serial port on your PC. See the router hardware installation guide for instructions.
- **Step 2** Connect the power supply to the router, plug the power supply into a power outlet, and turn on the router. See the router quick start guide for instructions.
- **Step 3** Use a terminal emulation program on your PC, with the terminal emulation settings 9600 baud, 8 data bits, no parity, 1 stop bit, and no flow control, to connect to the router.
- **Step 4** At the prompt, enter the **enable** command, and enter the password **cisco**.

yourname> **enable** 

Password: **cisco** yourname#

**Step 5** Enter the **erase startup-config** command.

yourname# erase startup-config

- **Step 6** Confirm the command by pressing **Enter**.
- **Step 7** Enter the **reload** command.

yourname# **reload** 

**Step 8** Confirm the command by pressing **Enter**.

After the router completes the reload operation, it enters into the standard Cisco IOS startup sequence. You can use the startup sequence to give the router a configuration manually, or to copy a configuration file from the network. If you later decide you want to use Cisco SDM to change an existing configuration, see the instructions on starting Cisco SDM included in the quick start guide for the router.

## Unable to Perform "squeeze flash:" Operation

If the router is using a Cisco IOS image earlier than release 12.3T, or release 12.2(13)ZH, it may be necessary to use the **squeeze flash:** command to reclaim flash memory after repeated use of Cisco SDM. If this becomes necessary, Cisco SDM informs you that the **squeeze flash:** command must be used, and will execute the command upon your confirmation.

However, the **squeeze flash:** command will not work if an **erase flash:** command has never been executed on the router. If this is the case you will receive an "Unable to perform 'squeeze flash'" warning message, and you will need to run the **erase flash:** command to enable the use of the **squeeze flash:** command.

Executing the **erase flash:** command removes Cisco SDM and the Cisco IOS image from the router flash memory, and you will lose your connection to the router. Complete the following steps to save files in flash memory, execute **erase flash:**, and copy the files back so you can reconnect to Cisco SDM.

- **Step 1** Ensure that the router will not lose power. If the router loses power after an **erase flash:** operation, there will be no Cisco IOS image in memory.
- **Step 2** Prepare a TFTP server to which you can save files and copy them over to the router. You must have write access to the TFTP server. Your PC can be used for this purpose if it has a TFTP server program.
- **Step 3** Open up a Telnet session on the router so that you can use the CLI.
- **Step 4** Save the router's running configuration to the startup configuration by entering the command **copy running-config startup-config**.
- **Step 5** Use the **copy tftp** command to copy the Cisco IOS image, and the Cisco SDM files from flash memory to a TFTP server:

**copy flash:** *filename* **tftp:**//*tftp-server-address/filename* 

For example:

Router# copy flash: sdm.tar tftp://10.10.10.3/sdm.tar

Table 4 on page 13 lists the files Cisco SDM uses.

<u>}</u> Tip

- If you prefer to download a Cisco IOS image, and the SDM-V*nn*.zip file, follow these instructions to use an Internet connection to download an SDM-supported Cisco IOS image, and the SDM-V*nn*.zip file.
  - a. Click the following link to obtain a Cisco IOS image from the Cisco Software Center:

http://www.cisco.com/kobayashi/sw-center

- **b.** Obtain an image that supports the features you want on the Cisco 12.2(11)T release or later. Save the file to the TFTP server that is accessible from the router.
- c. Use the following link to obtain the latest SDM-Vnn.zip file.

http://www.cisco.com/cgi-bin/tablebuild.pl/sdm

- d. Extract the Cisco SDM files from SDM-Vnn.zip.
- e. Click the setup.exe file to start the SDM installation wizard.

**Step 6** From the PC, log in to the router using Telnet, and enter Enable mode.

Router> **enable** Password: Router#

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- **Step 7** Enter the command **erase flash:**, and confirm. The router's IOS image, configuration file, and the Cisco SDM files are removed from flash memory.
- **Step 8** Use the **copy tftp** command to copy the IOS image and the Cisco SDM files from the TFTP server to the router:

copy tftp://tftp-server-address/filename flash:

Example:

Router# copy tftp://10.10.10.3/SDM.tar flash:



Copy the Cisco IOS image first, followed by the Cisco SDM files.

**Step 9** Start your web browser, and reconnect to Cisco SDM, using the same IP address you used when you started the session.

Now that an **erase flash:** operation has been performed on the router, you will be able to execute the **squeeze flash:** command when necessary.

## Security Alert Dialog May Remain After Cisco SDM Launches

When Cisco SDM is launched using HTTPS, a security alert dialog box that informs you of possible security problems and asks you if you want to proceed with program launch may appear. This can happen if the router does not have the following global configuration command in the running configuration:

ip http timeout-policy idle 600 life 86400 requests 10000

# **Caveats**

Caveats describe unexpected behavior in Cisco SDM. Severity 1 caveats are the most serious caveats, severity 2 caveats are less serious, and severity 3 caveats are the least serious of these three severity levels.

#### Resolved Caveats—Cisco SDM 2.4.1

This section lists caveats that are resolved in Cisco SDM 2.4.1.

• CSCsi34046

The java console displays an exception when a rule is created by going to **Edit Firewall Policy** > **Add a Rule**, and creating a rule that specifies application inspection for any Instant Messaging (IM) or Peer-to-Peer (P2P) protocol. This occurs when traffic is first specified, followed by the IM or P2P service and then the application inspection parameters.

This problem has been resolved in Cisco SDM 2.4.1.

• CSCsh83970

When the router timezone is set using the Cisco IOS CLI, Cisco SDM may display the wrong timezone when the router clock is displayed.

This problem has been resolved in Cisco SDM 2.4.1.

• CSCsh79330

When Cisco IOS IPS is configured with the SDM signature package using the IPS Rules wizard or the IPS Migration wizard on a router running Cisco IOS 12.4(11)T or later, an exception is displayed in the Java console window and the configuration is not delivered to the router. The SDM signature package has a name of the format sigv5-SDM-Sxxx.zip, for example sigv5-SDM-S260.zip

This problem has been resolved in Cisco SDM 2.4.1.

• CSCsh66244

Because of Cisco IOS caveat CSCsh69286, IPS alert statistics are not visible in the IPS Status screen in Monitor mode. This occurs when Cisco SDM is invoked with the SDM\_Monitor view.

This problem has been resolved in Cisco SDM 2.4.1.

## Open Caveats—Cisco SDM 2.4.1

This section lists caveats that are open in Cisco SDM 2.4.1.

• CSCsi98684

It is difficult to make global changes to the IOS IPS configuration on the router using Cisco SDM because there is no button that allows you to apply global changes to the router.

**Workaround**: After making changes to IPS global settings, click **Signatures** and make a change to a signature. The changes you made to global settings will be saved to the configuration along with the change to the signature that you made.

• CSCsj25096

When the SDM IPS policy wizard is used to configure Cisco IOS IPS, a message is displayed when you click the Target Value Rating, Event Action Override, or Event Action Filter buttons that indicates that you must enable IPS before you can configure IPS event action settings.

Workaround: Do the following:

- a. Click Edit IPS.
- **b.** Select the interface that you were configuring IPS event actions on, and click **Disable** to remove Cisco IOS IPS policies from the interface.
- **c.** With the interface on which you want to configure Cisco IOS IPS and IPS event actions settings selected, click **Edit**.
- d. Complete the dialog to configure IPS on the interface.
- e. Click OK.
- f. Configure IPS event action settings in the Target Value Rating, Event Action Override, and Event Actions Filters windows as needed.
- CSCsj21989

For a description of this caveat, see Cisco SDM Merge and Replace Configuration Functions Fail Under Some Conditions, in the Important Notes section. • CSCsg61829

When Cisco SDM is invoked using Firefox 2.0 is closed and then Firefox is relaunched, a pop-up saying that the browser was not closed properly appears and asks if the user wants to restore the previous session or start a new session. Clicking **Restore Session** opens the previously established SDM session without asking for any credentials.

Workaround: Instead of choosing to restore the old session, click **Start new session** to start a fresh browser session.

CSCsh11991

Because of a Cisco IOS IPS problem, when migrating a Cisco IOS IPS configuration created using a Cisco IOS image older than version 12.4(11)T to a 12.4(11)T or later environment, user-modified signatures are not migrated.

**Workaround**: After migrating, use the Add or Edit controls in the Edit IPS window to create the signature in the new format.

• CSCsh31616

Because of Cisco IOS caveat CSCsh32935, when reordering class maps in the Edit Inspection Policy Map dialog, the Cisco SDM-defined class map sdm-protocol-p2p may be removed if it was included in the policy map being edited.

• CSCsh39685

Because of Cisco IOS caveat CSCek68311, a Certificate Authority (CA) server created using the Cisco SDM CA Server wizard will be shown as stopped. This problem occurs when the router is running a Cisco IOS 12.4(11)T image.

Workaround: Upgrade the Cisco IOS image on the router to version 12.4(11)T2.

• CSCsh41150

When the router is running a Cisco IOS image older than 12.4(11)T the Easy VPN Server Status screen in Monitoring mode displays the IP address of a client configured with a Dynamic Virtual Template Interface (DVTI) as 0.0.0.

• CSCsh46525

You may be unable to delete a DVTI-based Easy VPN Remote configuration using Cisco SDM.

Workaround: Click Refresh in the Cisco SDM toolbar and then delete the configuration.

• CSCsh57750

When starting Cisco SDM under Firefox 2.0, online help, IDS, and the Wireless Application open as a tab in the Cisco SDM splash screen. This problem occurs because the default setting for Firefox is to open a new page as a tab.

Workaround: Do the following.

- Launch Firefox 2.0.
- From the Tools menu, choose **Options**.
- Click Tabs.
- In the Open links from other applications box, choose **a new window** option and click OK.
- CSCsh62598

When the QoS wizard is used to give a WAN interface QoS configuration with the NBAR option, the configuration is not completely delivered to the router because some of the match protocols are not present in Cisco IOS.

• CSCsh96364

Multiple instances of Cisco SDM in the Firefox 2.0 browser can cause exceptions to be displayed in the Java console.

- Workaround: Start only a single instance of SDM in the Firefox browser.
- CSCsi03518

When a firewall is configured using Cisco SDM, and then Cisco SDM is used to create an SSL VPN configuration on the router, a NAT passthrough configuration is added by the SSL VPN wizard. No NAT passthrough configuration is added when creating an SSL VPN configuration using the SSL VPN edit windows.

CSCsi16794

When the Wireless Express Security > Bridging/Routing window is used to configure an SSID, the SSID appears globally, but is not reflected in the Wireless Express Security > Bridging/Routing window or in the Wireless Express Security > >Bridging/Routing and Wireless Services->VLAN->Bridging/Routing windows.

When the Wireless Express Security > Bridging/Routing window is used to configure an SSID and associate it with a VLAN and an SSIDL, the last SSID created cannot be deleted.

When the Cisco IOS CLI is used to associate an SSID with a VLAN that has a name rather than an ID, the Wireless Application page displays the VLAN value as none.

When the Cisco IOS CLI is used to configure the encryption type as AES-CCMP, using the Wireless Security > Encryption Manager window to change the encryption type does not deliver the changed configuration to the router.

These problems are encountered on routers running Cisco IOS 12.4(11)XJ.

Workaround: Use the Cisco IOS CLI to perform these configurations.

CSCsi23696

Because of Cisco IOS caveat CSCsi23729, when Cisco SDM is used to restore the defaults to a signature on a router running Cisco IOS 12.4(11)T2, signatures that were previously displayed no longer appear in the signature list.

Workaround: This may be addressed in a future release of Cisco IOS.

• CSCsh44720

When Cisco SDM installed on a PC is invoked in Internet Explorer 7.0 using either HTTP or HTTPS, the popup window asking for the IP address of the router appears again after the IP address has been entered in the first popup window.

When Cisco SDM installed on router flash memory nvoked in Internet Explorer 7.0 using HTTPS, a certification error is displayed. Cisco SDM starts if you choose **Continue to this website (not recommended)**.

• CSCsg53496

Because of Cisco IOS caveat CSCsg63809, SSID configuration values entered in the Wireless Security > Bridging/Routing window are not delivered to the router.

Workaround: This issue is resolved in Cisco IOS 12.4(15)T.

• CSCsg36618

The Cisco SDM Wireless Application does not work on modular routers using wireless network adaptors running Cisco IOS release 12.4(9)T1.

Workaround: This issue is resolved in Cisco IOS 12.4(15)T.

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• CSCsg90956

If you use the Cisco SDM install wizard to install Cisco SDM on a router that is running Cisco IOS 12.4(12), or if the file management feature is used to place a .tar file on the router running Cisco IOS 12.4(12), the operation may fail.

**Workaround**: The workaround for both problems is to manually copy the files from the PC to the router using TFTP or FTP.

• CSCek38259

If the router is configured to allow Cisco SDM access through a SSL VPN gateway that listens on the standard port 443, and that gateway is modified to listen on another custom port, the commands that were added for Cisco SDM access are not automatically removed, and must be removed using the Cisco IOS CLI. The SSL VPN gateway may have been configured using the SSL VPN wizard, or it may have been configured manually and then modified to allow Cisco SDM access by adding the commands described in Cisco SDM May not Launch Using IP Address of SSL VPN Gateway.

#### Workaround:

To safely edit the SSL VPN gateway to listen to a port other than 443, do the following:

- Go to Configure > VPN > SSLVPN > Edit SSL VPN, select the gateway and click Edit.
- Uncheck the Enable secure SDM access through *IP address* checkbox is checked, uncheck it, and click OK to deliver the configuration change to the router.
- Click Edit again and enter the port number that you want the SSL VPN gateway to use.
- Remove the loopback interface that was created for Cisco SDM access by clicking Configure
   Interfaces and Connections > Edit Interfaces/Connections and removing the loopback interface.
- To remove the NAT rule, click Configure > NAT > Edit NAT Configuration, and remove the NAT rule that was added. Do not remove the NAT rule if it is being used by other parts of the configuration.

Cisco SDM can now be invoked using the standard HTTPS port 443.

If you prefer to use the Cisco IOS CLI, enter the following commands to remove the loopback interface and NAT rule that were added to allow Cisco SDM access. In these steps, Loopback 0 with an IP address of 192.168.1.1, and FastEthernet 0/0 with an IP address of 10.20.30.40 are used as examples.

```
Router# config t
Router(config)# no interface Loopback0
Router(config)# interface FastEthernet0/0
Router(config-if)# no ip nat outside
Router(config)# no ip nat inside source static tcp 192.168.1.1 443 10.20.30.40
4443
Router(config)# exit
```



Do not enter the no ip nat inside command if other NAT translation rules are using it. If no other rules use this command, remove it.

• CSCsd28755

When you import signatures from a large Signature Definition File (SDF) more than 4 or 5 times during the same session, Cisco SDM may close. This problem has not been observed consistently. This problem has no workaround.

• CSCek33306

Cisco SDM may not launch from an interface with a CLI-configured SSL VPN if the CLI commands necessary for Cisco SDM access have not been added. This includes SSL VPNs configured with the command **webvpn enable** *SSLVPNname IP-address* **SSLVPN**.

For more information about this caveat, see the "Cisco SDM May not Launch Using IP Address of SSL VPN Gateway" section on page 18.

• CSCsd33430

Cisco SDM Express browser windows do not close if the Secure Device Provisioning application is launched from Cisco SDM Express. If you choose Secure Device Provision in the Router Provisioning screen, the SDP application is launched after you complete the Cisco SDM Express wizard and deliver the commands to the router. After the commands are delivered, Cisco SDM Express closes, but the two browser windows associated with Cisco SDM Express do not close automatically. This behavior has been observed in all browsers.

**Workaround**: Close these windows manually. However, note that closing these windows manually also closes the SDP application. Therefore, do not close these windows until you have completed configuring the router using the SDP application.

• CSCei33081

When Cisco SDM is run on the PC, the Load File from PC function available from the File Management window may not work properly.

**Workaround**: With a TFTP server application on the PC, copy files to the router using the **copy tftp flash** command.

• CSCej01054

The SDM\_HIGH security policy may not block Instant Messaging (IM) applications. The application security feature blocks IM applications using the **server deny** *name* command. New servers may become available, and if they do, IM applications may connect to them.

Workaround: Complete the following steps:

- Turn on firewall logging for IM applications. The names of the servers that the IM applications connect to will be revealed in the log.
- Use the CLI to block the new servers. The following example uses the server *newserver.yahoo.com*:

```
router# config t
router(config)# appfw policy-name SDM_HIGH
router(cfg-appfw-policy)# application im yahoo
router(cfg-appfw-policy-ymsgr)# server deny name newserver.yahoo.com
router(cfg-appfw-policy-ymsgr)# end
router#
```

```
<u>Note</u>
```

- IM applications are able to communicate over nonnative protocol ports, such as HTTP, and through their native TCP and UDP ports. Cisco SDM configures block and permit actions based on the native port for the application, and always blocks communication conducted over HTTP ports.
- Some IM applications, such as MSN Messenger 7.0, use HTTP ports by default. To permit these applications, configure the IM application to use its native port.

• CSCei84100

When the applications security policy blocks some Peer-to-Peer (P2P) applications, but permits others, blocked applications may be able to download files.

**Workaround**: Instead of permitting some P2P applications and blocking others, exclude the applications that you want to permit from the application security policy by unchecking the box next to the application name.

CSCej07924

Because of a problem with the Cisco IOS NBAR feature, some Peer-to-Peer applications are able to download files even when application security is configured to block them. When the Cisco IOS NBAR feature is used to block Peer-to-Peer applications, only those applications and protocols supported by the NBAR feature will be successfully blocked.

#### Workaround: None

CSCsb26386

Because of a problem with Cisco IOS (CSCin92327), a connection between an Easy VPN Remote client and an Easy VPN Server may timeout before the user has time to enter the credentials.

Workaround: None

CSCsb59200

Due to a JVM bug (http://bugs.sun.com/bugdatabase/view\_bug.do?bug\_id=4110094) Cisco SDM IPS may crash when large Signature Definition Files (SDF) are imported. When Cisco SDM is used to import large SDFs such as virtualsensor.xml or IOS-S178.zip, Cisco SDM crashes when dismissing the Import Signature dialog. This problem does not always occur.

**Workaround**: Set the java heap size to -Xmx256m and try to import the file again. If you need to use Cisco SDM to perform a critical operation, complete that operation before reattempting to import the file.

• CSCsa40535

VPN status in the Monitor windows do not show IPsec security association (SA) parameters for DMVPN when CLI status commands report that the crypto tunnels are up and traffic is passing through. The DMVPN tunnel is shown as established in the IKE SA tab.

Workaround: Use the CLI to view DMVPN status.

• CSCef34056

If multiple instances of Cisco SDM are run under Netscape version 7.1 using the Java Virtual Machine (JVM) or the Java plug-in, and the user shuts down one instance of Cisco SDM, then all other open instances of Cisco SDM on that PC are shut down.

This problem occurs because Netscape version 7.1 uses only one instance of the JVM or the Java plug-in, even when multiple instances of Netscape are launched. As a result, when one instance of Cisco SDM is shut down, Netscape shuts down the JVM or the Java plug-in, and all other instances of Cisco SDM are also shut down.

**Workaround**: If Cisco SDM is run under Netscape version 7.1, open only one instance of Cisco SDM. Using Internet Explorer is advised when multiple instances of Cisco SDM must be opened, such as when the user must configure multiple routers at the same time.

• CSCef43267

When the **crypto identity ca** command is used, the Loopback0 interface is shown as having no configured IP address in the Edit Interfaces and Connections window when an IP address has been configured.

**Workaround**: Disregard the IP address information in the Interfaces and Connections window. If you need to view the IP address, choose the interface and click the Edit button.

• CSCef50389

When an Easy VPN Server is configured using Digital Certificates for authentication, and an Easy VPN Remote connection is configured on another router, the client statistics for the Easy VPN server are all shown as 0 in the VPN Status window.

**Workaround:** To view client statistics, choose **Tools** > **Telnet**. Log in to the router, and issue the **show crypto session** command.

• CSCef57546

When adding a new signature to the ATOMIC.ICMP engine, you may see the error message "[Enum(xxx)-StorageKey-ATOMIC.ICMP] the value AaBb is not a valid value."

**Workaround**: In the Add Signature window, go to the parameter StorageKey, and click the green square to enable editing for this parameter. the green square icon will change to a red diamond icon. Choosing any value from the drop down box will fix this problem.

• CSCef63313

If an Easy VPN Remote configuration has connections to more than one Easy VPN server configured, VPN troubleshooting deactivating may report troubleshooting results for only one VPN server or give incorrect recommendations. This issue is seen only in some Cisco IOS images.

Workaround: None.

• CSCef72022

Invoking Cisco SDM with a user associated with SDM\_Monitor view adds a PKI trust point and an Easy VPN profile. This behavior does not affect the running configuration.

**Workaround**: Invoke Cisco SDM with a user associated with a different CLI view, or with a user of privilege level 15.

• CSCef53222

Cisco SDM filenames are case sensitive. If the Cisco SDM files are copied from the PC hard disk to a flash card, File Explorer changes the names to uppercase. When this happens, Cisco SDM cannot be invoked from this flash card.

Workaround: Before removing the flash card from the PC, restore the filenames to lowercase.

• CSCef77689

When the router is running a Cisco IOS image that does not support the **show pppoe session** command, WAN troubleshooting may not report any reasons for failure or recommended actions for PPPoE connections that are found to be down.

Workaround: None.

• CSCin54600

If a firewall is configured for an interface which already has a Management Access policy associated with it, choosing **Replace** in the Merge/Replace dialog box might prevent access to certain networks.

This occurs because choosing **Replace** causes the policy access control entries (ACEs) to be disassociated from the interface but not from the vty or HTTP line.

**Workaround**: When running Firewall wizard on an interface configured with Management Access policy, choose **Merge** option instead of **Replace** and proceed.

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CSCef73879

VPN troubleshooting may report a possible Maximum Transmission Unit (MTU) problem in the passthrough network when the tunnel is up. If the VPN interface is a dialer interface configured on an asynchronous interface, this problem may not always exist, and the displayed recommended action will have no effect.

Workaround: Ignore this message and the corresponding recommendation.

• CSCef73395

Due to a problem with Cisco IOS, if a custom protocol is mapped to a port and the same custom protocol is specified for matching under a classmap, and then the mapping of the custom protocol is deleted from the configuration, Cisco IOS does not give any warning message that the user should first delete the **match protocol custom-01** commands that make use of the custom protocol mapping.

Workaround: Do the following:

- Configure the custom protocol again.
- Remove all the match protocol statements that reference the custom protocol that you configured.
- Remove the custom protocol from the configuration.
- CSCef52940

This problem is caused by Cisco IOS caveat CSCef52919. A user with privilege level 1 who is associated with a view may be able to log in to Cisco SDM with a privilege level of 15. This occurs when authentication authorization and accounting (AAA) is enabled, and a vty line is configured with privilege level 2 through 15.

**Workaround**: Do not configure privilege 1-level users. The problem does not occur when users of higher privilege levels are configured.

• CSCec31789

When you update Cisco SDM, if any of the uploaded files shows a size of zero bytes when **show flash** is invoked, no operations such as copy or delete can be performed on flash memory. This problem rarely occurs.

**Workaround**: Restart the router to be able to perform operations on flash memory. If files of zero bytes are shown in a **show flash** display, restart the router before starting Cisco SDM.

CSCea90231

Router does not reload with default configuration when a' user executes a Reset To Factory Defaults operation in Cisco SDM.

If the router is running Cisco IOS Release 12.2(11)T6, and the last 4 bits of the config-register value are set to 0, for example 0x2100 or 0x1100, the router does not reload when the user performs a Reset To Factory Defaults. Cisco SDM indicates that it has sent a **reload** command to the router and shuts down, and the default configuration is copied to the startup-config, but the **reload** command has not executed, and the router is still using the running configuration that was present before the Reset To Factory Defaults operation.

**Workaround:** Use the CLI config-register command to ensure that the last 4 bits of the config register are not set to 0 (zero).

• CSCea89054

If you delete a WAN connection that you created, an **ip nat inside** command may still remain in a LAN interface configuration.

**Workaround:** To delete the **ip nat inside** command from the LAN interface configuration, go t o Edit Interfaces and Connections, choose the LAN interface, click Edit, and delete the association in the Association tab.

CSCin44264

Enabling AES encryption or IP compression in the Add/Edit IKE Policy or Add/Edit Transform Set windows might not work even though the Cisco IOS image running on the router supports AES encryption or IP Compression.

This may happen in the following circumstances:

- Hardware encryption is enabled.
- The router has a VPN module that does not support AES encryption or IP compression.

Workaround: Do one of the following:

- Disable hardware encryption by adding the no crypto engine accelerator command to the configuration file using the CLI interface. This command tells the router to use Cisco IOS software for encryption instead of using the encryption provided by the VPN module.
- Upgrade your hardware VPN module to one that supports AES or IP compression.

For more info on VPN Modules, see the data sheet at the following link: VPN data sheet.

• CSCdy80223

When Cisco SDM runs with a Cisco IOS image of a release earlier than 12.3T, or earlier than Release 12.2(13)ZH, the HTTP server appends unnecessary characters to names of files it displays. As a result, when Cisco SDM is started, the web browser displays the warning "Content does not match the signature."

Workaround: Disregard the warning and click Yes to continue.

CSCin44119

When an Easy VPN tunnel is active, using Cisco SDM to apply a NAT configuration to the Easy VPN inside and outside interfaces will deliver **ip nat inside** and **ip nat outside** commands to the router, but the running configuration will not be changed. Cisco SDM displays no error message when this is attempted.

**Workaround**: To apply a NAT configuration to interfaces that have been designated as Easy VPN inside or outside interfaces, complete the following steps in Cisco SDM:

- Choose the Easy VPN tunnel in the VPN Connections window and click **Disconnect**. If the Connect/Disconnect button is disabled, choose the interface in the Interfaces and Connections window, open the Association tab for that connection and change the Easy VPN association to None.
- Open the NAT window, click Designate NAT Interfaces, and designate NAT inside and NAT outside interfaces.
- Select the Easy VPN tunnel, and click Connect. If you had to disassociate the Easy VPN tunnel from the connection, return to the Association tab, and choose the Easy VPN connection name again.
- CSCec83817

Cisco SDM will not start on a Cisco 831 router with 32 MB of memory if run from Netscape. An exception will be displayed in the Java console window, and in the router console window indicating a memory allocation failure.

**Workaround**: Run Cisco SDM using Internet Explorer version 5.5 or later. Or, if you want to continue to use Netscape, log in to the router CLI and enter the following **memory-size** command in global configuration mode:

Router# memory-size iomem 10

CSCin61634

XAuth authentication intermittently fails, and Easy VPN tunnels cannot be established using Cisco SDM on routers running Cisco IOS Release 12.3(4)T. When the user attempts to do an Xauth authentication in Cisco SDM, the following error message is displayed:

Unable to establish a session with the router to process XAUTH request from the Easy VPN server. Easy VPN tunnel cannot be successfully brought up.

This message is followed by another indicating that the **connect** command was delivered to the router, but that the tunnel was not established.

**Workaround**: In the VPN Connections window, choose the Easy VPN tunnel configuration and click the **Reset Tunnel** button to clear the tunnel and reconnect it. If this does not bring up the tunnel, use the **Login** button, more than once if necessary, to bring up the tunnel.

• CSCed06737

When Cisco SDM Express runs with Cisco IOS image of Release 12.2(15)T, it fails to download the configuration file from the CNS server through the Cisco SDM Express wizard. See CSCin65539 for more details. This issue occurs only with Cisco IOS Release 12.2(15)T.

Workaround: Upgrade to Cisco IOS Release 12.3(4)T or later.

• CSCec87975

On Cisco 7x00 routers, the Cisco SDM Update feature is supported if the current Cisco SDM files were loaded onto the router flash disk or Compact Flash disk. However, the Cisco SDM Update feature fails to upload new files to the router if the current Cisco SDM files were installed in flash memory. The Cisco SDM Update feature uses RCP protocol to upload the new Cisco SDM files to the router, but the RCP Server misinterprets the "flag" sent by the RCP Client for the above mentioned file systems.

**Workaround**: If the current Cisco SDM files were loaded into flash memory, update to the new Cisco SDM version by manually copying the new Cisco SDM files to the file system of the router using a TFTP server. To make use of the automatic Cisco SDM Update feature, always install Cisco SDM files on the flash disk or Compact Flash disks (disk0, disk1, disk2).

• CSCed31085

Cisco SDM should not get invoked from boot images such as kboot images on 72xx routers. Such boot images are a subset of the Cisco IOS software and do not support all router functions.

**Workaround:** Boot the router with an Cisco SDM-supported Cisco IOS image, and then invoke Cisco SDM. See Table 2 on page 7 for the Cisco IOS releases that Cisco SDM supports.

CSCed26049

On 72xx platforms, encryption is not supported on PA-4T port adapters. Because the CLI does not support crypto maps for these types of interfaces, Cisco SDM will fail to assign crypto maps to these interfaces. The PA-4T port adapter will not support future compression and encryption features.

**Workaround:** Upgrade your 72xx router hardware to the 4t+ PA port adapter.

• CSCed30721

Whenever any unconfigured interface contains the description \$FW\_INSIDE\$, on a router configured with a firewall, adding a new NTP server will not modify the firewall ACLs to allow NTP passthrough traffic. Instead, when the user edits the firewall's outside interface in the Interfaces and Connections window, Cisco SDM prompts the user to add the NTP passthrough traffic.

**Workaround**: Use the CLI to manually remove the description \$FW\_INSIDE\$ from the unconfigured interface.

CSCin63613

If the interface used for the primary backup connection is configured for PPPoE encapsulation, the backup connection will not function properly if the next hop address is specified during configuration. A Cisco IOS caveat (CSCin64336) has been filed for this problem. If the interface used for the primary backup connection is an Ethernet interface configured without encapsulation, the backup connection will not function properly if the next hop address is not specified during configuration.

Workaround: Do one of the following:

- For PPPoE connections: *Do not* provide the next hop IP address when you configure the primary backup connection.
- For Ethernet connections without encapsulation: *Do* provide the next hop IP address when you configure the primary backup connection.
- CSCin63415

If the WAN wizard is used to configure an analog modem connection as a primary backup connection, and the analog modem connection is deleted, Cisco SDM may report that the interface contains unsupported configuration parameters.

Workaround: Click Refresh on the Cisco SDM toolbar, and delete the connection.

CSCed18560

The Interfaces and Connections window may display the Backup option in disabled state for asynchronous interfaces on Cisco 831 and Cisco 837 routers. This will occur when the following operations have been performed:

- The interface used for the primary backup connection is configured with an Cisco SDM-supported IP address type.
- The asynchronous interface is configured as the backup for a primary interface.
- The IP address of the primary interface is changed.

When the IP address of the primary interface is changed, Cisco SDM displays a Yes or No warning popup asking if you want to remove the backup configuration. If you choose **Yes**, Cisco SDM removes the backup configuration, but the Interfaces and Connections window still shows the backup option as disabled, preventing you from choosing the asynchronous interface as a backup interface.

**Workaround**: Delete the asynchronous interface configuration using the Interfaces and Connections window.

CSCin48956

When the router is configured to use PPPoE, users may not be able to download a file using FTP or display web pages from Internet hosts that they are able to ping or access using telnet. This can happen if Cisco SDM is being used on a router with interfaces that Cisco SDM does not support, such as Token Ring or VLAN interfaces. Cisco SDM does not deliver the command **ip tcp** adjust-mss 1452 to unsupported interfaces.

**Workaround**: Use the CLI to add the ip tcp adjust-mss 1452 command to the VLAN or Token Ring interface configuration. Use Telnet to access the router and enter the following command in VLAN or Token Ring interface configuration mode:

Router# ip tcp adjust-mss 1452

CSCed00381

The Cisco SDM Express wizard may not deliver the configuration to a Cisco 2691 router running Cisco IOS images of Release 12.2(15)T or 12.2(15)ZJ when SSH is used to communicate between Cisco SDM Express and the router. When Cisco SDM Express is invoked using the string https://router-IP-address, it uses SSH.

**Workaround**: When launching Cisco SDM Express, click Cancel in the SSH credentials window. Cisco SDM Express will use the Telnet protocol to communicate with the router. Enter the login ID and password in the Telnet credentials window.

• CSCed25696

When launching the Dynamic Multipoint Virtual Private Network (DMVPN) Hub and Spoke wizard, Cisco SDM may take up to 12 seconds to display the first wizard window. This latency may occur if a JRE plug-in of any version is running in the browser, or if Cisco SDM is using the SSH or Telnet communications module.

• CSCed08825

Cisco SDM may take several seconds to display screens in the DMVPN wizard. This latency may occur if a Java plug-in is running in the browser.

CSCed34587

Using an IP unnumbered interface as a DMVPN tunnel source may cause Cisco IOS to crash. An interface configured as IP unnumbered uses the IP address of another interface on the router. This Cisco IOS problem does not always occur.

**Workaround**: Instead of using an IP unnumbered interface as the DMVPN tunnel source, use the interface that is referenced in the ip unnumbered command. If you are configuring a hub, the interface must have a static IP address.

CSCed91235

The router reloads when an NHRP tunnel interface is removed. This is a Cisco IOS caveat which you may encounter when deleting a DMVPN tunnel. This caveat duplicates CSCed41641.

Workaround: There is no workaround for this problem.

CSCin68829

If an Analog Modem or ISDN connection is deleted using Cisco SDM, the dialer interface may not be deleted from the configuration and the router may reload. This is due to a Cisco IOS caveat, CSCin69090. This occurs on routers using Cisco IOS images of Release 12.3(4)XG or later, or Cisco IOS Release 12.3(7)T.

Workaround: There is no workaround for this problem.

• CSCed92739

On routers running Cisco IOS Release 12.3(6), Cisco IOS may reload if Cisco SDM is started using HTTPS.

Workaround: Start Cisco SDM by entering http://ip-address. Do not use https://ip-address.

• CSCee67639

The Cisco SDM Express wizard may fail if the router is running Cisco IOS Release 12.3(9) and there is not sufficient space in NVRAM to save the startup configuration. This problem should not occur with new routers.

Workaround: If this problem occurs, use the CLI to remove unneeded files from NVRAM.

• CSCed13205

Cisco SDM does not issue the **ntp update-calendar** Cisco IOS command on Cisco 7200 routers if there are no new settings to enter and if the Network Time Protocol (NTP) server was configured using the CLI, only one NTP server IP address was provided and no ntp update-calendar Cisco IOS command was present in the running configuration.

**Workaround**: Use Cisco SDM to delete the NTP server configuration entry, click Refresh, and then re-create the entry, or make changes to the existing NTP server entry.

• CSCee71373

Because of a Cisco IOS issue (CSCee63313), if Cisco SDM is used to enable IPS on an interface, and then used to disable IPS on that interface, the router crashes.

• CSCee65422

Due to a Cisco IOS issue (see CSCee58000), Cisco SDM is unable to configure a virtual auxiliary port on Cisco 831, 836, or 837 routers running Cisco IOS Release 12.3(7)XR1.

**Workaround**: Load the rebuilt Cisco Release 12.3(7)XR2 image on the router when it becomes available and then use Cisco SDM to configure a virtual auxiliary port.

• CSCeg57729

When Cisco SDM is installed on a PC, it cannot be launched if run from Netscape 7.1 or 7.2 and popup blockers have been enabled.

**Workaround:** In Netscape, go to **Edit > Preferences > Privacy and Security > Popup Windows**. In the Popup Windows section, uncheck Block unrequested popup windows, and then click Apply. Relaunch Cisco SDM.

• CSCef89472

A download exception message may appear in the Java console when Cisco SDM is launched on a PC running Japanese Windows 2000, or Japanese Windows XP. This problem does not prevent Cisco SDM from starting or from being used.

• CSCeg40910

The Cisco SDM installation program does not use HTTPS to back up files from the router.

• CSCeg67630

When Cisco SDM is invoked from Cisco SDM Express started under a nondefault browser, you must reenter router username and password before Cisco SDM will start.

Workaround: Use the default browser when launching Cisco SDM Express.

• CSCeg67964

When Cisco SDM is installed on a PC running Windows XP with Service Pack 2, Internet Explorer will display a message bar at the top of the browser window stating: "To help protect your security, Internet Explorer has restricted this file from showing active content that access your computer. Click here for options..." Clicking **Allow blocked content** does not enable Cisco SDM to launch.

**Workaround**: In Internet Explorer, go to **Tools > Internet Options > Advanced**. Then scroll to the Security section, check **Allow active content to run in files on my computer**, and click **Apply**. Then relaunch Cisco SDM.

CSCeg74805

When Cisco SDM is run with certain Cisco IOS images, the number of Open Shortest Path First (OSPF) processes created can be greater than the number of interfaces in the administratively UP state. However, the running configuration does not display the value of the area configured for these additional networks. Thus, Cisco SDM is unable to display the networks for these additional OSPF processes. This problem has been reported with the following Cisco IOS images:

- c1700-k9o3sy7-mz.123-12.8.PI6
- c836-k9o3sy6-mz.123-11.T2.bin
- c181x-adventerprisek9-mz
- CSCeh05530

If signatures are imported using Cisco SDM IPS on a router running Cisco IOS Release 12.3(11)T3, system variables parameters are ignored by Cisco IOS.

Workaround: Upgrade to a Cisco IOS image that supports SystemVariables.

CSCeh06870

The Cisco SDM Update from PC feature will not operate when the SDM-Vnn.zip file is placed in a shared folder with read-only access.

Workaround: Do not place the SDM-Vnn.zip file in a folder with read-only access.

CSCeg63100

Because of a problem with Cisco IOS (CSCeg63077), VPN troubleshooting will not detect the IKE mismatch in site-to-site VPN configuration. Instead it will give a generic recommendation to apply the mirror configuration generated by Cisco SDM which would solve this problem.

**Workaround**: Follow the recommendation displayed in the VPN troubleshooting window to apply mirror configuration on both the devices.

# **Related Documentation**

This section lists other documents with information on Cisco SDM.

#### **Platform-Specific Documents**

See the quick start guide for the router, available on http://www.cisco.com, to learn how to set up the router hardware connections.

#### **Software Documents**

These documents are available on http://www.cisco.com/go/sdm.

• Cisco Router and Security Device Manager Q&A. Click Product Literature, and then click Q&A.

- Downloading and Installing Cisco Router and Security Device Manager (SDM). Click Install and Upgrade in the Technical Documentation and Tools box, and then click Install and Upgrade Guides.
- Switching from Cisco Router Web Setup Tool (CRWS) to Cisco SDM on Cisco 83X Series Routers. Click Install and Upgrade in the Technical Documentation and Tools box, and then click Install and Upgrade Guides.
- *Running Non English Editions of SDM on English-Language Operating Systems.* Click Maintain and Operate in the Technical Documentation and Tools box, and then click End User Guides.
- A number of application notes are available by clicking **Reference Guides** in the Technical Documentation and Tools box, and then clicking Technical References

Note

For information on obtaining documentation and technical assistance, product security, and additional information, see What's New, which also lists new and revised documents each month.

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.

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