



# Release Notes for Cisco Emergency Responder 1.2(1)

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**Updated: November 22, 2004**

These release notes are updated to provide the following information about Cisco Emergency Responder (Cisco ER) 1.2(1):

- **New Cisco CallManager support**—In addition to the previously-supported versions of Cisco CallManager, Cisco ER 1.2 provides support for Cisco CallManager 4.0, and 3.3(3). For other supported versions of Cisco CallManager and supported switches, refer to the Network Hardware and Software Requirements section in the *Cisco Emergency Responder Administration Guide 1.2(1)* at the following URL:  
<http://www.cisco.com/univercd/cc/td/doc/product/voice/respond/index.htm>
- When you install Cisco ER 1.2(1) as a new installation, you will be prompted to select the version of Cisco CallManager that you are running; you are presented with options for Cisco CallManager 3.1, 3.2, or 3.3.
  - If you are running Cisco CallManager 3.1, 3.2, or 3.3, select the version you are running.
  - If you are running Cisco CallManager 4.0, select any one of the available options: Cisco CallManager 3.1, 3.2, or 3.3; Cisco ER will accept it. If you later upgrade to Cisco ER 1.2(3), you will be presented with the



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Cisco CallManager 3.x options and additional options for 4.0 and 4.1. You can then select the correct version of Cisco CallManager that you are running.

- CSCin83776—Cisco ER 1.2(1) fails after installation when running Active Directory on OS 2.6. For details and workaround, see the following URL:

<http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin83776>

- You must install the Cisco ER publisher and subscriber on servers separate from each other; and, they must be installed on separate servers from Cisco CallManager and any Cisco AVVID application.
- You must remove any service releases, service patches or anti-virus software prior to upgrading Cisco ER. Removing the service releases will not impact your Cisco ER configuration. To remove service releases and service patches, use the Add/Remove Program in the Microsoft Windows control panel. After the upgrade, re-install the programs.
- The Cisco Emergency Responder (Cisco ER) procedures for installation and upgrades have been updated since the *Cisco Emergency Responder Administration Guide 1.2(1)* was made available on Cisco.com. You can install Cisco ER 1.2(1) as a new install or upgrade to Cisco ER 1.2.(1) from all earlier versions of Cisco ER 1.1(x). Use the updated procedures contained in these release notes:
  - [Before You Install or Upgrade](#), page 16
  - [Installing Cisco Emergency Responder 1.2\(1\) on a New System](#), page 19or
  - [Upgrading from Cisco Emergency Responder 1.1\(x\) to Cisco Emergency Responder 1.2\(1\)](#), page 24

### Updated: April 9, 2004

These release notes are updated to note the following corrections to the “*Configuring Cisco CallManager for Cisco Emergency Responder*” chapter of Cisco Emergency Responder Administration Guide 1.2. The online guide has been updated with the changes.

- In the “*Creating a Cisco Emergency Responder Calling Search Space*” section, step 4 incorrectly says to select the Phones partition and then select the E911 partition. You must select the E911 Partition and then select the Phones partition. Arrange the partitions so that E911 is at the top of the list. If you are using any other partitions, add them to this list after the E911 partition.
- In the “*Creating the Emergency Call Route Points*” section, the example provided in Table 3-1 incorrectly lists the Partition for Route Point 911 as E911. You should enter Phones for the Partition for Route Point 911.
- In the “*Creating the Translation Patterns for 9.911*” section, Table 3-2 has been added to clarify the entries in the procedure. And Table 3-3 has been included to support the new procedure to configure emergency call route points for 9.911.

### Updated: September 26, 2003

These release notes are updated to add the following information about Cisco Emergency Responder Service Release 1.2(1):

- If your Cisco Emergency Responder 1.1(x) configuration contains apostrophe characters that cause the migration to Cisco Emergency Responder 1.2 to fail, download **CER.1-2-1-sr1.exe** and install it according to the CER.1-2-1-sr1.Readme.txt instructions.

You can find CER.1-2-1-sr1.exe and the CER.1-2-1-sr1.Readme.txt at this URL:

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

- See [Table 1](#) for problems resolved in Cisco Emergency Responder Service Release 1.2(1).

These release notes provide the following information about Cisco Emergency Responder 1.2:

- [What's New in Cisco Emergency Responder 1.2, page 4](#)
- [Network Hardware and Software Requirements, page 7](#)
- [Network Hardware and Software Requirements, page 7](#)
- [Installing Cisco Emergency Responder 1.2\(1\) on a New System, page 19](#)
- [Upgrading from Cisco Emergency Responder 1.1\(x\) to Cisco Emergency Responder 1.2\(1\), page 24](#)
- [Documentation Roadmap, page 28](#)
- [Cisco Emergency Responder 1.2 Known Problems, page 29](#)
- [Obtaining Documentation, page 31](#)
- [Obtaining Technical Assistance, page 33](#)
- [Obtaining Additional Publications and Information, page 36](#)

## What's New in Cisco Emergency Responder 1.2

The changes and new features in Cisco Emergency Responder (Cisco ER) 1.2 are reflected in the *Cisco Emergency Responder Administration Guide 1.2*:

- **Installation requirement**—You can install Cisco ER 1.2 as a new installation or as a upgrade from all earlier versions of Cisco ER. For information, see [“Installing Cisco Emergency Responder 1.2\(1\) on a New System” section on page 19](#) or [“Upgrading from Cisco Emergency Responder 1.1\(x\) to Cisco Emergency Responder 1.2\(1\)” section on page 24](#)

After you install Cisco ER 1.2(1):

- If you later upgrade from Cisco CallManager 3.1 to 3.2, you must run this file:  
C:\Program Files\CiscoSystems\CiscoER\bin\CCM3.2.bat
- If you later upgrade from Cisco CallManager 3.2 to 3.3, you must run this file:  
C:\Program Files\CiscoSystems\CiscoER\bin\CCM3.3.bat

- If you later upgrade from Cisco CallManager 3.3 to 4.0, you must run this file:

C:\Program Files\CiscoSystems\CiscoER\bin\CCM4.0.bat

- **Upgrade requirement**—Before you upgrade from Cisco ER 1.1(x) to Cisco ER 1.2, you must apply all your Cisco ER user license keys on the Cisco ER 1.1(x) license manager screen. These license keys will then be migrated during the upgrade to Cisco ER 1.2. Note that Cisco ER 1.2 will not recognize Cisco ER 1.1(x) user licenses when applied through the Cisco ER 1.2 License manager screen.
- **New Cisco CallManager support and new switch support**—In addition to the previously-supported versions of Cisco CallManager, Cisco ER 1.2 provides support for Cisco CallManager 4.0, and 3.3(3). For other supported versions of Cisco CallManager and supported switches, refer to the Network Hardware and Software Requirements section in the Planning chapter.
- **Cisco Emergency Responder 1.2 Enhancements**—Refer to the Planning chapter for a list of the new features available in Cisco ER 1.2.
- Note the following two corrections to the Planning chapter of the *Cisco Emergency Responder Administration Guide 1.2* (corrected in the online version of the guide on Cisco.com):
  - Cisco ER 1.2 supports 120,000 switch ports on the MCS 7845H.
  - With Cisco ER 1.2, you can add user licenses in the following increments: 100; 500; 1,000; 5,000; 10,000.

Table 1 lists the bugs that were fixed in Cisco Emergency Responder 1.2.

**Table 1 Fixed Problems in Cisco Emergency Responder 1.2**

Bug ID	Summary
CSCin55802	The apostrophe character in the Cisco Emergency Responder attributes causes the upgrade to Cisco Emergency Responder 1.2 to fail.
CSCin52568	Sysappl MIBS returns invalid Cisco Emergency Responder details after upgrade.
CSCin52387	The ERL Debug tool shows the MAC of a Cisco IP SoftPhone as device name as seen in Cisco CallManager.
CSCin56236	Cisco IP SoftPhone is not discovered behind switch port after using the ERL Debug tool.
CSCin44170	Thread count increases for cer.exe with McAfee installed.

**Table 1** Fixed Problems in Cisco Emergency Responder 1.2 (continued)

<b>Bug ID</b>	<b>Summary</b>
CSCdw11238	There are no web alerts generated if there is no init to the GUI.
CSCdv34748	IF ECS is restarted, calls are routed to default while the GUI shows zone info.
CSCeb29699	Cisco Emergency Responder does not discover Cisco IP SoftPhones configured with the hostname for Cisco CallManager.
CSCin01309	Movement of phones homed to another Cisco Emergency Responder group is not always detected.
CSCin25393	Inter-server group movements are not tracked if all the Cisco CallManagers are integrated with Active Directory.
CSCdv22688	Send alerts to administrator if e911 server goes down.
CSCdu76987	Able to login with invalid passwords.
CSCea07192	Ability to have 911 route point as a configurable extension.
CSCin10039	Need to handle failover of more than two CTI Managers.
CSCin33690	Cisco Emergency Responder does not work if the Cisco CallManager DC directory password is changed using ccmpwdchanger.
CSCin49224	Unlocated phones do not get associated with the addition of an IP address.
CSCeb67305	Switch port and phone update process is not completed in Cisco Emergency Responder 1.1(4).
CSCin51407	CTI ports do not register after a subscriber to publisher transition.
CSCin28362	Non-CDP phones connected to a 45xx switch are not discovered.
CSCin57518	Cisco Emergency Responder server license expires with Active Directory after inserting user license key.

# Network Hardware and Software Requirements

These tables list the hardware and software that Cisco Emergency Responder 1.2 (Cisco ER) supports. The type of support can differ between types of hardware, so read the table carefully to determine how Cisco ER will work with the devices you use:

- [Table 2 on page 8](#)—Other software that you must install to use Cisco ER 1.2.
- [Table 3 on page 9](#)—Optional software that is recommended for use with Cisco ER.
- [Table 4 on page 10](#)—The different types of phones that support Cisco ER 1.2. However, the type of support Cisco ER 1.2 supplies differs depending on the type of phone and the type of switch port to which the phone is attached.
- [Table 5 on page 12](#)—The switches supported for automatic tracking. You can use other switches, but you might have to manually define phones attached to those switches.



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**Note**

Cisco Emergency Responder (Cisco ER) does not support Cisco Integrated Communications System (ICS) 7750 servers.

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- [Table 6 on page 15](#)—Supported Media Convergence Server Platforms and configurations.

**Table 2** Required Software

Item	Minimum Software Version	Description
Cisco CallManager	3.1(4b) Cisco ER 1.2 also supports: <ul style="list-style-type: none"> <li>• Cisco CallManager 3.1(4b)</li> <li>• Cisco CallManager 3.2(2) spB Cisco CallManager 3.2(2c) Cisco CallManager 3.2(2c) spE Cisco CallManager 3.2(2c) spF Cisco CallManager 3.2(2c) spG</li> <li>• Cisco CallManager 3.2(3)</li> <li>• Cisco CallManager 3.3(2) spA Cisco CallManager 3.3(2) spB Cisco CallManager 3.3(2) spC</li> <li>• Cisco CallManager 3.3(3)</li> <li>• Cisco CallManager 4.0</li> </ul>	The software that runs the telephony network. The Cisco CallManager directory is used by Cisco ER to store cluster information.
Cisco CallManager Operating System	OS 2000.2.3 Cisco ER 1.2 also supports OS 2000.2.4	Be sure to upgrade your OS version to OS 2000.2.3 or OS 2000.2.4, <b>before</b> installing <b>or</b> upgrading to Cisco ER 1.2.
Web browser	<ul style="list-style-type: none"> <li>• Netscape Navigator 4.5 up to, but not including, 6.x</li> <li>• Microsoft Internet Explorer 5.0 and higher</li> </ul>	Navigator is supported on Solaris, Windows NT, and Windows 95.  Internet Explorer is supported on Windows 2000, Windows NT, and Windows 95.

**Table 3** *Optional And Recommended Software*

<b>Item</b>	<b>Minimum Software Version</b>	<b>Description</b>
Email server	Any SMTP email server	Used to send email notifications to onsite alert (security) personnel. If you use an SMTP email-based paging server, personnel are paged instead of emailed.
Cisco IP Telephony Applications Backup Utility	Version 3.5.44	Used as a reliable and convenient way to perform regularly scheduled automatic or user-invoked backups of your data. Use the utility with Cisco ER 1.2 to manually perform periodic directory backups.
Ciscoworks IP Telephony Environment Monitor (ITEM)	Version 2.0	Used to monitor the health and functionality of Cisco ER 1.2.
McAfee Netshield	Version 4.5.1 SP1	Used to help protect your system from virus attacks.
Cisco Intrusion Detection System (IDS)	Version 2.5.3	Used to help protect your system from security and network attacks.

**Note**

For information on using McAfee Netshield and the Cisco Intrusion Detection System (IDS), refer to this URL:  
[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_callmg/sec\\_vir/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/sec_vir/index.htm)

**Table 4**     *Supported Phones*

Phones	Description
<p><b>Phones automatically tracked using CDP</b></p> <ul style="list-style-type: none"> <li>• Cisco IP Phone models 7960, 7940, 7935, 7912, 7910, 7905G, 7902</li> <li>• All other Skinny phones with CDP support, with the exception of ATA devices</li> </ul>	<p>These phones do not require special Cisco ER configuration. However, ensure that you enable CDP (Cisco Discovery Protocol) on the switches.</p> <p><b>Note</b>     Cisco ER 1.2 displays the phone type for the Cisco IP Phone models 7902, 7905G, and 7912 as “OTHER.”</p> <p><b>Note</b>     Although ATA phones support CDP and SCCP, Cisco ER cannot automatically track them. You can add ATA phones manually and assign them to an ERL. Cisco ER will route calls from ATA phones based on the assigned ERL.</p>
<p><b>Phones automatically tracked using CAM tables</b></p> <ul style="list-style-type: none"> <li>• Cisco IP SoftPhone 1.2 and 1.3</li> <li>• Cisco IP Phone models 12 SP+ and VIP 30</li> </ul>	<p>To automatically track these phones, you must enable CAM tracking when you add the switches to the Cisco ER configuration. Phones that do not use CDP are tracked using the CAM table on all supported switch platforms for Native and AUX Vlans.</p> <p>For more information, see the “Identifying the LAN Switches” in the <i>Cisco Emergency Responder Administration Guide 1.2(1)</i>.</p>

**Table 4 Supported Phones (continued)**

Phones	Description
<p><b>Phones that you can track using IP subnet</b></p> <ul style="list-style-type: none"> <li>• Wireless phones, such as Cisco Wireless IP Phone 7920 and Cisco IP SoftPhones running on 802.11b</li> <li>• Supported Cisco IP Phones connected to Cisco or third-party switches that are not discovered or recognized by Cisco ER</li> </ul>	<p>To track these phones, you must configure the subnet and then assign ERLs to the configured subnets.</p> <p>See Configuring IP Subnet-based ERLs in the <i>Cisco Emergency Responder Administration Guide 1.2(1)</i>.</p>
<p><b>Phones that you can manually define</b></p> <ul style="list-style-type: none"> <li>• Analog phones, for example, phones connected to VG248 and ATA devices</li> <li>• Generic H.323 or SIP endpoints</li> <li>• Any phone otherwise supported for automatic tracking that is connected to an unsupported switch port</li> </ul>	<p>These phones are only supported if their calls are routed by Cisco CallManager.</p> <p>See the “Manually Defining a Phone” section in the <i>Cisco Emergency Responder Administration Guide 1.2(1)</i> for information about defining these phones in the Cisco ER configuration.</p>



**Note** Cisco ER supports SNMP version 1, version 2 and version 2c of a LAN switch.

**Table 5** Supported Voice-Ready LAN Switches

Series (Ethernet ports only)	Notes	Device Supported	System Object ID from CISCO-PRODUCTS-MIB
Catalyst 2900 XL	12.1.9.EA1 and higher	2908 XL	1.3.6.1.4.1.9.1.170
		2916 MXL	1.3.6.1.4.1.9.1.171
		2924 XL	1.3.6.1.4.1.9.1.183
		2924 CXL	1.3.6.1.4.1.9.1.184
		2924 XLV	1.3.6.1.4.1.9.1.217
		2924 CXLV	1.3.6.1.4.1.9.1.218
		2912 XL	1.3.6.1.4.1.9.1.219
		2924 MXL	1.3.6.1.4.1.9.1.220
		2912 MXFL	1.3.6.1.4.1.9.1.221
		2900	1.3.6.1.4.1.9.5.12
		2926	1.3.6.1.4.1.9.5.35
		2948 G	1.3.6.1.4.1.9.5.42
		2980 G	1.3.6.1.4.1.9.5.49
		2980 GA	1.3.6.1.4.1.9.5.51

**Table 5** Supported Voice-Ready LAN Switches (continued)

<b>Series (Ethernet ports only)</b>	<b>Notes</b>	<b>Device Supported</b>	<b>System Object ID from CISCO-PRODUCTS-MIB</b>
Catalyst 2950	12.1.9.EA1 and higher	2950-12	1.3.6.1.4.1.9.1.323
		2950-24	1.3.6.1.4.1.9.1.324
		2950C-24	1.3.6.1.4.1.9.1.325
		2950T-24	1.3.6.1.4.1.9.1.359
		2950G-12	1.3.6.1.4.1.9.1.427
		2950G-24	1.3.6.1.4.1.9.1.428
		2950G-48	1.3.6.1.4.1.9.1.429
		2950S-24	1.3.6.1.4.1.9.1.430
		2950G-24DC	1.3.6.1.4.1.9.1.472
Catalyst 3500 XL	Cisco IPS 12.0(5)XU or higher  If you are using 3500 clusters, you must assign an IP address to each 3500 switch.	3508 GXL	1.3.6.1.4.1.9.1.246
		3512 XL	1.3.6.1.4.1.9.1.247
		3524 XL	1.3.6.1.4.1.9.1.248
		3548 XL	1.3.6.1.4.1.9.1.278
		3524 PWR XL	1.3.6.1.4.1.9.1.287
Catalyst 3550	12/1/6/EA1a or higher	3550-24	1.3.6.1.4.1.9.1.366
		3550-48	1.3.6.1.4.1.9.1.367
		3550-12T	1.3.6.1.4.1.9.1.368
		3550-12G	1.3.6.1.4.1.9.1.431
		3550-24DC	1.3.6.1.4.1.9.1.452
Catalyst 4000/4500	Catalyst OS 5.5 or higher	4003	1.3.6.1.4.1.9.5.40
		4912 G	1.3.6.1.4.1.9.5.41
		4006	1.3.6.1.4.1.9.5.46
		4500	1.3.6.1.4.1.9.1.14
		4503	1.3.6.1.4.1.9.5.58
		4506	1.3.6.1.4.1.9.5.59

**Table 5 Supported Voice-Ready LAN Switches (continued)**

<b>Series (Ethernet ports only)</b>	<b>Notes</b>	<b>Device Supported</b>	<b>System Object ID from CISCO-PRODUCTS-MIB</b>
Catalyst 4000	Cisco IOS 12.1(13)EW	4000 C	1.3.6.1.4.1.9.1.448
		4503	1.3.6.1.4.1.9.1.503
		4506	1.3.6.1.4.1.9.1.502
		4507	1.3.6.1.4.1.9.1.501
Catalyst 5000	Catalyst OS 6.x	5000	1.3.6.1.4.1.9.5.7
		5002	1.3.6.1.4.1.9.5.29
Catalyst 5500		5500	1.3.6.1.4.1.9.5.17
		5505	1.3.6.1.4.1.9.5.34
		5509	1.3.6.1.4.1.9.5.36
Catalyst 6000	Catalyst OS 5.5 or higher If using an MSFCW module, Cisco IOS 12.1(3a)XL	6006	1.3.6.1.4.1.9.5.38
		6009	1.3.6.1.4.1.9.5.39
		6509	1.3.6.1.4.1.9.5.44
		6506	1.3.6.1.4.1.9.5.45
		6509 SP	1.3.6.1.4.1.9.5.47
		6513	1.3.6.1.4.1.9.5.50
Catalyst 6000	Cisco IOS	6006	1.3.6.1.4.1.9.1.280
		6009	1.3.6.1.4.1.9.1.281
		6506	1.3.6.1.4.1.9.1.282
		6509	1.3.6.1.4.1.9.1.283
		6509 SP	1.3.6.1.4.1.9.1.310
		6513	1.3.6.1.4.1.9.1.400

Cisco ER runs on Cisco Media Convergence Server (MCS) hardware platforms (with Windows 2000 and voice applications). You can also use equivalent Cisco-certified servers. Cisco ER 1.2 supports the MCS platforms and scalability shown in [Table 6](#).



**Note** The number of ERLs that can be deployed is determined by the number of route patterns and translation patterns configurable in Cisco CallManager.



**Note** Cisco ER servers support a maximum of 500 CTI-based Cisco IP SoftPhones.



**Note** Cisco Emergency Responder (Cisco ER) does not support Cisco Integrated Communications System (ICS) 7750 servers.

**Table 6** Supported Cisco ER 1.2 MCS Platforms and Scalability

Scalability	MCS 7815I-2.0	MCS 7825H-2.2	MCS 7835I-2.4 MCS 7835H-2.4	MCS 7845H-2.4
Switches	200	500	1,000	2,000
Switch Ports	12,000	30,000	60,000	120,000
Manual Phones	1,000	2,500	5,000	10,000
Roaming Phones (remote Cisco ER group)	600 per Cisco ER cluster	1,200 per Cisco ER cluster	2,000 per Cisco ER cluster	3,000 per Cisco ER cluster
IP Phones	6,000	12,000	20,000	30,000

Table 7 lists configurations that Cisco ER does not support.

**Table 7 Non-Supported Configurations**

Non-Supported Configurations	Notes
Hub topologies	
DSL, VPN, IDSN and other remote or dial-in technologies	Cisco ER cannot support telecommuters who have phones linked into your network over these types of lines
Survivable remote site telephony (SRST)	If you deploy Cisco ER over a WAN link, the link must be active for Cisco ER to work correctly.

## Before You Install or Upgrade

Cisco recommends that you perform the installation or upgrade during off-peak hours. The upgrade will stop Cisco Emergency Responder services, upgrade the required services and files and restart the Cisco ER services when complete.

Review the following information before you upgrade your system to Cisco ER 1.2(1):

- Determine and list your Cisco ER Host Name and Passwords.
  - Decide on a permanent hostname for the Cisco ER server before you install Cisco ER. Changing the hostname of a Cisco ER server after installation may cause problems.
  - Cisco recommends that you add the publisher hostname and the IP address to the hosts file (usually at C:\\WINNT\\system32\\drivers\\etc\\hosts) on the subscriber **before** you begin the Cisco ER installation or upgrade.
  - The hostname for the Cisco ER 1.2(1) publisher and subscriber must not contain the underscore character (\_). If you have an existing Cisco ER server with an underscore in its hostname, change the hostname of the server prior to installing Cisco ER 1.2(1).
  - The local Administrator password must be the same for the Cisco ER publisher server and subscriber server. If the passwords are different, there may be problems in setting up the subscriber database. If you encounter problems with the subscriber database setup, use the Admin Utility task “Point subscriber to new publisher” to fix the

problem. For more information, see the “Using the Cisco ER Admin Utility” in the *Cisco Emergency Responder Administration Guide 1.2(1)*.

- Different versions of Cisco ER cannot be deployed in the same Cisco ER group. The subscriber and the subscriber Cisco ER servers must be running the same version of Cisco ER. If you are upgrading to Cisco ER 1.2(1) make sure to upgrade both Cisco ER servers to version 1.2(1).
- You must upgrade the entire Cisco ER cluster.
- Cisco CallManager Versions:
  - When you install Cisco ER 1.2(1) as a new installation, you will be prompted to select the version of Cisco CallManager that you are running. Select your version of Cisco CallManager from the options: 3.1, 3.2, or 3.3. Or, if you are running Cisco CallManager 4.0 or 4.1, select one of the earlier versions; Cisco ER will accept it.
  - After you upgrade to Cisco ER 1.2(1), you get additional options for your Cisco CallManager version. When prompted, select the version of Cisco CallManager that you are running: Cisco CallManager 3.1, 3.2, 3.3, 4.0, or 4.1.
- Use the Add/Remove Program in the Microsoft Windows control panel to uninstall all Service Packs, Service Patches and Antivirus Services; re-install them after the upgrade:
  - Uninstall all Service Packs and Service Releases before the upgrade. This will not impact your Cisco ER configuration.
  - Uninstall all antivirus services, such as the Cisco-approved McAfee virus service. You can enable all antivirus services after you complete the procedures.
  - If you have Cisco IDS Host Sensor Agents installed on the server, you must uninstall the following services before the upgrade: intercept Agent; intercept Watchdog; intercept Notification Manager; intercept Server.
- Caveats:
  - You cannot install Cisco ER on the same system as any other Cisco IP Telephony applications, such as Cisco CallManager, Cisco Customer Response Solutions (Cisco CRS), Cisco CallManager AutoAttendant, Cisco Personal Assistant, and so on.

- You cannot install Cisco ER on a Windows domain controller.
  - You cannot install or upgrade to Cisco ER 1.2(1) using Terminal Services.
  - Once you upgrade your system to Cisco ER 1.2(1), Cisco ER downgrades are not supported.
  - Review the latest caveats contained in these Cisco ER 1.2(1) release notes for before installation.
- Install the components for Cisco ER 1.2(1) in the order shown in [Table 8](#).

**Table 8 Installation Tasks**

Installation Task	Where to Find Documentation
Cisco CallManager operating system  Cisco ER 1.2 supports: OS 2000.2.3 and OS 2000.2.3	<a href="http://www.cisco.com/univercd/cc/td/doc/product/voice/iptel_os/install/index.htm">http://www.cisco.com/univercd/cc/td/doc/product/voice/iptel_os/install/index.htm</a>
Cisco CallManager	<a href="http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm">http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm</a>
Cisco CallManager Backup and Restore Utility Version 3.5.44	<a href="http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/3_3/install/backup/index.htm">http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/3_3/install/backup/index.htm</a>
Cisco ER 1.2(1)	<p>If you are installing Cisco Emergency Responder for the first time, perform the following procedures:</p> <ul style="list-style-type: none"> <li>• <a href="#">Installing Cisco Emergency Responder 1.2(1) on a New System, page 19</a></li> </ul> <p>Or perform the following upgrade procedure:</p> <ul style="list-style-type: none"> <li>• <a href="#">Upgrading from Cisco Emergency Responder 1.1(x) to Cisco Emergency Responder 1.2(1), page 24.</a></li> </ul>
Post Cisco ER 1.2(1) upgrade	Enable any services such as antivirus software that you disabled before the upgrade.

# Installing Cisco Emergency Responder 1.2(1) on a New System

This procedure describes how to install Cisco Emergency Responder (Cisco ER) 1.2(1) on a new system.

With Cisco ER 1.2, the Cisco ER cluster information is determined at the time of installation. Cisco ER cluster information is based on the Cisco CallManager publisher where you point your initial configuration data to be stored. You enter Cisco ER group configuration through the web interface based on publisher (master) and subscriber (backup) server pairs:

- [Installing the Cisco ER Publisher Server, page 19](#)
- [Installing the Cisco ER Subscriber Server, page 21](#)

## Installing the Cisco ER Publisher Server

To install Cisco ER 1.2(1), you install the publisher server first, then you install the subscriber server on a separate machine. You must install Cisco ER on separate servers from Cisco CallManager or any Cisco AVVID applications.

To install the publisher server, perform the following steps:

### Procedure

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- Step 1** As a local administrator, log onto the computer where you are running the Cisco ER installation program.
- Step 2** Insert the Cisco ER Installation CD into the CD-ROM drive and launch the Cisco ER installation program by clicking on the installation executable file:  
**cer-ffr.1-2-1.exe**  
This will start extracting the installation files.
- Step 3** Click **Next** to continue the installation.  
The End-User License Agreement window displays.

**Step 4** Read the agreement, and click **Yes** to accept the terms and continue. (Or, click **No** to cancel the installation).

The Cisco Emergency Responder server window displays.

**Step 5** On the Cisco Emergency Responder server page, select **Publisher** to install the publisher first.

The Service Log On Account window displays.

**Step 6** At the Password field, enter a password for the CERSQLAdmin account (this is the user account created and used by Cisco ER) and click **Next**.

The Cisco Emergency Number Configuration window displays.

**Step 7** Change the Emergency Number default value of 911 to the emergency number for your location and click **Next**.

The Cluster Directory Configuration window displays.

**Step 8** On the Cluster Directory Configuration window, enter the settings for the Cisco CallManager system that you will use for Cisco ER cluster configuration information.

- a. Host name—The host name of the server running Cisco CallManager.
- b. User Name—The username for the administrator on the Cisco CallManager host.
- c. Password—The password for the administrator on the Cisco CallManager host.



**Note**

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The Cisco ER installation will fail if the Cisco CallManager Publisher is currently mapped on the Cisco ER server. Be sure to remove any network mappings or logout of the Cisco ER server and login again to start the installation. To remove an existing mapping to Cisco CallManager, see the [“Removing Network Mappings”](#) section on page 23.

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- Step 9** Select the Cisco CallManager version that you are running.
- If you are running Cisco CallManager 3.1, 3.2, or 3.3, then select your Cisco CallManager version.
  - If you are running Cisco CallManager 4.0, select any of the Cisco CallManager 3.x versions; Cisco ER will accept it. If you later upgrade to Cisco ER 1.2(3), you will get additional options for Cisco CallManager 4.0 and 4.1 and you can then select your correct Cisco CallManager version.
- Step 10** Click **Next**.  
The Ready to Install Cisco Emergency Responder window displays.
- Step 11** Click **Next**.  
The installation of the Cisco ER publisher server will take about an additional 10 to 15 minutes to complete.
- Step 12** After installation, Cisco ER prompts you to reboot.  
Reboot the server now for Cisco ER to become operational.
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## Installing the Cisco ER Subscriber Server

After you have installed the Cisco Emergency Responder publisher server, you must install the Cisco Emergency Responder (Cisco ER) subscriber server. Install the subscriber on a separate from the Cisco ER publisher and separate from Cisco CallManager or Cisco AVVID applications.



### Caution

Be sure that you have completely installed the publisher, including the reboot, before you start to install the subscriber server.

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Perform the following steps to install the Cisco ER subscriber server.

### Procedure

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- Step 1** As a local administrator, log onto the computer where you are running the Cisco ER installation program for the subscriber.
- Step 2** Insert the Cisco ER Installation CD into the CD-ROM drive and launch the Cisco ER installation program by clicking on the installation executable file:  
**cer-ffr.1-2-1.exe**  
This will start extracting the installation files.
- Step 3** Click **Next** to continue the installation.  
The End-User License Agreement window displays.
- Step 4** Read the agreement, and click **Yes** to accept the terms and continue. (Or, click **No** to cancel the installation.)  
The Cisco Emergency Responder server window displays.
- Step 5** On the Cisco Emergency Responder server page, select **Subscriber** and enter the following data:
- a. At the Publisher Hostname, enter the name of the Cisco ER publisher.
  - b. At the CERSQLAdmin password on Publisher, enter the CERSQLAdmin account password on the publisher.
- The Cisco ER installation validates the publisher Cisco ER version; reads the Cisco CallManager cluster information and the Cisco CallManager version configuration; and displays the details.  
Cisco ER displays the Subscriber Details window.



### Note

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The Cisco ER installation will fail if the Cisco CallManager publisher is currently mapped on the Cisco ER server. Be sure to remove any network mappings or logout of the Cisco ER server and login again to start the installation. To remove an existing mapping to Cisco CallManager, see the [“Removing Network Mappings”](#) section on page 23.

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**Note** If the installation cannot validate the publisher, see the “Cannot Validate Publisher” section in the Troubleshooting chapter.

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- Step 6** Verify the publisher information.
- If the publisher information is correct, click **Next**.
  - If the information is not correct, click the **Back** button and make sure that the correct Cisco ER publisher server is specified. Then, click **Next**.
- Installation of the subscriber server takes approximately 10 minutes to complete.
- Step 7** After installation, Cisco ER prompts you to reboot.  
Reboot the server now for Cisco ER to become operational.




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**Tip** Cisco ER creates multiple files in the directory C:\CERInstall. If you need to contact Cisco Technical Support concerning installation issues, zip and send all the files under this folder to your support contact.

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## Removing Network Mappings

The installation of Cisco Emergency Responder (Cisco ER) will fail if the Cisco CallManager publisher is currently mapped on the Cisco ER server. Make sure to remove any network mappings or logout of the Cisco ER server and login again to start the installation.

To remove an existing mapping to Cisco CallManager on the Cisco ER server, perform the following steps:

### Procedure

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- Step 1** To open Windows Internet Explorer, go to Programs > Start and right click **Explore**.
- Step 2** Go to the Tools menu and select **Disconnect Network Drive**.

- Step 3** Locate the mappings that correspond to this Cisco CallManager, select them, and select **ok** to remove them.
- Step 4** Now run the Cisco ER installation and provide the Cisco CallManager information at the prompts.
- Step 5** If you continue to have installation problems, zip and send all the files in the directory C:\CERInstall to Cisco Technical Support.
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## Upgrading from Cisco Emergency Responder 1.1(x) to Cisco Emergency Responder 1.2(1)

This procedure describes how to upgrade Cisco Emergency Responder 1.1(x) to Cisco Emergency Responder 1.2(1). Be sure to read the [“Before You Install or Upgrade” section on page 16](#) before upgrading your system.

With Cisco Emergency Responder 1.2(1), the Cisco ER cluster information is determined at the time of installation. Cisco ER cluster information is determined by the Cisco CallManager publisher upon which your initial configuration data is stored. You enter Cisco ER group configuration through the web interface based on publisher and subscriber server pairs.

The Cisco ER 1.2(1) upgrade installation program launches the data migration utility to migrate Cisco ER 1.1(x) data to the publisher server. This data migration utility does not migrate Cisco ER 1.1(x) data to the subscriber server; the subscriber obtains this data from the publisher during the periodic database synchronizations.

### **Before You Begin the Upgrade from Cisco ER 1.1(x) to Cisco ER 1.2(1)**

- Before you upgrade from Cisco ER 1.1(x) to Cisco ER 1.2(1), you must apply all your Cisco ER user license keys on the Cisco ER 1.1(x) License Manager screen. These license keys will then be migrated during the upgrade to Cisco ER 1.2(1). Note that Cisco ER 1.2 will not recognize Cisco ER 1.1(x) user licenses when applied through the Cisco ER 1.2(1) License Manager screen.

- Cisco ER 1.1(x) and Cisco ER 1.2(1) cannot be deployed in the same Cisco ER group. If you are upgrading to Cisco ER 1.2(1) make sure to upgrade both Cisco ER servers to version 1.2(1).
- The Cisco CallManager publisher that stores the group LDAP data for the Cisco ER 1.1(x) you are upgrading must be available and reachable during the Cisco ER 1.2(1) upgrade. This is required for successful migration of Cisco ER 1.1(x) data during the upgrade.
- If the Cisco CallManager used for storing Cisco ER 1.1(x) group LDAP data is integrated with Active Directory, make sure that the Active Directory is also reachable during the upgrade.

To upgrade Cisco ER 1.1(x) to Cisco ER 1.2(1), you first install the publisher server. Perform the following steps:

### Procedure

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- Step 1** Download the Cisco ER 1.2(1) upgrade program, **CER-fmu.1-2-1.exe**, from the Cisco software download page: <http://www.cisco.com/cgi-bin/tablebuild.pl/cer>.
- Step 2** Double click **CER-fmu.1-2-1.exe** to begin the installation.  
The End-User License Agreement window displays.
- Step 3** Read the agreement, and click **Yes** to accept the terms and continue. (Or, click **No** to cancel the upgrade.)  
The Cisco Emergency Responder server window displays.
- Step 4** On the Cisco Emergency Responder server page, select Publisher to install the publisher first.  
The Service Log On Account window displays.
- Step 5** At the Password field, enter a password for the CERSQLAdmin account. This is the user account created and used by Cisco ER.
- Step 6** Click **Next**.  
The Cisco Emergency Number Configuration window displays.
- Step 7** Change the Emergency Number default value of 911 to the emergency number for your location.
- Step 8** Click **Next**.  
The Cluster Directory Configuration window displays.

- Step 9** On the Cluster Directory Configuration window, enter the settings for the Cisco CallManager system that you will use for Cisco ER cluster configuration information:
- a. Host name—The host name of the server running Cisco CallManager.
  - b. User Name—The username for the administrator on the Cisco CallManager host.
  - c. Password—The password for the administrator on the Cisco CallManager host.

The CallManager Server Version window displays.

- Step 10** Select the correct Cisco CallManager version that the Cisco ER services will coexist with and click **Next**.
- You will have options of Cisco CallManager versions 3.1, 3.2, 3.3.
  - If you are running Cisco CallManager 4.0, select any one of the available options: Cisco CallManager 3.1, 3.2, or 3.3; Cisco ER will accept it. If you later upgrade to Cisco ER 1.2(3), you are presented with the Cisco CallManager 3.x options and additional options for 4.0 and 4.1. You can then select the correct version of Cisco CallManager that you are running.

The Ready to Install Cisco Emergency Responder window displays.

- Step 11** Click **Next**.

The publisher server for Cisco ER is installed. Installation takes approximately 10 to 15 minutes to complete.

- Step 12** After the installation, Cisco ER prompts you to reboot.

Reboot the server now.

- Step 13** Proceed to installing the subscriber server.
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To complete the upgrade to Cisco ER 1.2(1), you now install the subscriber on a separate server. Perform the following steps:

### Procedure

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- Step 1** Download the Cisco ER 1.2(1) upgrade program, **CER-fmu.1-2-1.exe**, from the Cisco software download page: <http://www.cisco.com/cgi-bin/tablebuild.pl/cer>.
- Step 2** Double click **CER-fmu.1-2-1.exe** to begin the installation.  
The End-User License Agreement window displays.
- Step 3** Click **Next** to continue the installation.  
The End-User License Agreement window displays.
- Step 4** Read the agreement, and click **Yes** to accept the terms and continue. (Or, click **No** to cancel the installation.)  
The Cisco Emergency Responder server window displays.
- Step 5** On the Cisco Emergency Responder server page, select **Subscriber** and enter the following data:
- a. At the Publisher Hostname, enter the name of the Cisco ER publisher.
  - b. At the CERSQLAdmin password on Publisher, enter the CERSQLAdmin account password on the publisher.



#### Note

The Cisco ER installation will fail if the Cisco CallManager Publisher is currently mapped on the Cisco ER server. Be sure to remove any network mappings or logout of the Cisco ER server and login again to start the installation. To remove an existing mapping to Cisco CallManager, see the [“Removing Network Mappings” section on page 23](#).

Cisco ER displays the Publisher Details window.

The Cisco ER installation validates the publisher Cisco ER version; reads the Cisco CallManager cluster information and the Cisco CallManager version configuration; and displays the details.



#### Note

If the installation cannot validate the publisher, see the [“Cannot Validate Publisher” section in the Troubleshooting chapter](#).

- Step 6** Verify the publisher information.
- If the publisher information is correct, click **Next**.
  - If the information is not correct, click the **Back** button and make sure that the correct Cisco ER publisher server is specified. Then, click **Next**.

The subscriber server for Cisco ER is now installed. Installation takes approximately 10 minutes to complete.

- Step 7** After installation, Cisco ER prompts you to reboot.  
Reboot the server now for Cisco ER to become operational.

**Tip**


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Cisco ER creates multiple files in the directory C:\CERInstall. If you need to contact Cisco Technical Support concerning installation issues, zip and send all the files under this folder to your support contact.

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**Note**


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All data from Cisco ER 1.1(x) will be migrated to Cisco ER 1.2(1).

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This completes the system upgrade to Cisco ER 1.2(1).

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## Documentation Roadmap

Use these publications to learn how to install and use Cisco Emergency Responder (Cisco ER). All Cisco ER documents are available online at:

<http://www.cisco.com/univercd/cc/td/doc/product/voice/respond/index.htm>

- *Cisco Emergency Responder Administration Guide 1.2*—Describes how to plan for, install, configure, manage, and use the Cisco ER application. An Adobe Acrobat (PDF) version of this manual is available on the Cisco Emergency Responder 1.2 software CD and in the Cisco ER administration online help.
- Cisco Emergency Responder Administration 1.2 online help —Contains information available in *Cisco Emergency Responder Administration Guide 1.2*.

- *Cisco Emergency Responder User's Guide 1.2*—Describes how to use the end-user interface, used by onsite alert (security) personnel to obtain information about emergency calls. This guide is built into the end-user interface as the online help system. The online help includes a PDF version you can use to print the guide for distribution.
- *Release Notes for Cisco Emergency Responder 1.2*—contains the latest information about Cisco ER 1.2.

**Note**

The license documents that contain the server license key and user license key ship with the Cisco ER software; these documents are not available online. See the Cisco ER license requirements in the *Cisco Emergency Responder Administration Guide 1.2* for a description of these documents.

## Cisco Emergency Responder 1.2 Known Problems

Known problems are unexpected behaviors or defects in the product. They are graded according to severity level. These release notes contain information about some of the known problems that you might encounter.

You can search for additional known problems on the Cisco bug tracking system tool, called Bug Toolkit. To access Bug Toolkit, enter [http://www.cisco.com/cgi-bin/Support/Bugtool/launch\\_bugtool.pl](http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl) in your web browser.

[Table 9](#) describes restrictions or other known issues for using Cisco Emergency Responder 1.2. Enter the Bug Toolkit URL to see a full description of a problem.

**Table 9** *Cisco Emergency Responder 1.2 Known Problems*

Bug ID	Headline and Bug Toolkit URL
CSCed50283	An ERL can be deleted without first disassociating the IP Subnet. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCed50283">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCed50283</a>
CSCin36763	The same phone is seen in the IP subnet screen and the switch port screen. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin36763">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin36763</a>

**Table 9** Cisco Emergency Responder 1.2 Known Problems (continued)

Bug ID	Headline and Bug Toolkit URL
CSCin45219	A new server group entry gets created in LDAP for every installation. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin45219">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin45219</a>
CSCin47989	A switch port search by phone type not available. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin47989">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin47989</a>
CSCin50064	Discovered phones of another server group are lost after a reboot of the Cisco Emergency Responder server. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50064">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50064</a>
CSCin51370	Cisco Emergency Responder cannot find the correct ERL for two phones with the same extension in a remote server group. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin51370">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin51370</a>
CSCin48214	The ERL name for intercluster calls is confusing. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin48214">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin48214</a>
CSCin50772	The database subscription for Cisco Emergency Responder may not happen if the subscriber is backdated. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50772">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50772</a>
CSCin46794	Need a utility to reset the backup administrator password on the Cisco Emergency Responder server. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin46794">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin46794</a>
CSCin38464	Cisco Emergency Responder shows an incorrect module identifier for 3550 switches. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin38464">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin38464</a>
CSCin47031	Cisco Emergency Responder displays a wrong port name for 29xx and 35xx switches. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin47031">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin47031</a>
CSCin53499	Cisco Emergency Responder does not detect a phone with a 6513 that has dual supervisors. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin53499">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin53499</a>
CSCin50146	Memory usage on 7835H causes a warning on NMS applications. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50146">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50146</a>

**Table 9** Cisco Emergency Responder 1.2 Known Problems (continued)

Bug ID	Headline and Bug Toolkit URL
CSCin50214	Cisco IP SoftPhone movement with change in IP not updated. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50214">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin50214</a>
CSCin52568	Sysappl MIBS returns invalid Cisco Emergency Responder details after upgrade. <b>Note</b> This problem has been fixed in Cisco Emergency Responder Service Release 1.2(1). <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin52568">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin52568</a>
CSCin52387	The ERL Debug tool shows the MAC of a Cisco IP SoftPhone as device name as seen in Cisco CallManager. <b>Note</b> This problem has been fixed in Cisco Emergency Responder Service Release 1.2(1). <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin52387">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin52387</a>
CSCin54282	Cisco Emergency Responder does not discover phones if CCM.EXE is not running on the seed Cisco CallManager. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin54282">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin54282</a>
CSCin57649	Import of CSV file saved in Microsoft Excel causes error. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin57649">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCin57649</a>

## Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

## Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

[http://www.cisco.com/en/US/partner/ordering/ordering\\_place\\_order\\_ordering\\_tool\\_launch.html](http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html)

## Ordering Documentation

You can find instructions for ordering documentation at this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpk/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm)

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:

<http://www.cisco.com/en/US/partner/ordering/index.shtml>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

## Documentation Feedback

You can submit comments electronically on Cisco.com. On the Cisco Documentation home page, click **Feedback** at the top of the page.

You can e-mail your comments to [bug-doc@cisco.com](mailto:bug-doc@cisco.com).

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Obtaining Technical Assistance

Cisco provides Cisco.com, which includes the Cisco Technical Assistance Center (TAC) website, as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from the Cisco TAC website. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC website, including TAC tools and utilities.

### Cisco.com

Cisco.com offers a suite of interactive, networked services that let you access Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

To obtain customized information and service, you can self-register on Cisco.com at this URL:

<http://tools.cisco.com/RPF/register/register.do>

## Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The type of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration. There is little or no impact to your business operations.
- Priority level 3 (P3)—Operational performance of the network is impaired, but most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- Priority level 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively impacted by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.
- Priority level 1 (P1)—An existing network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

## Cisco TAC Website

The Cisco TAC website provides online documents and tools to help troubleshoot and resolve technical issues with Cisco products and technologies. To access the Cisco TAC website, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://tools.cisco.com/RPF/register/register.do>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, we recommend that you open P3 and P4 cases online so that you can fully describe the situation and attach any necessary files.

## Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

# Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:

[http://www.cisco.com/en/US/products/products\\_catalog\\_links\\_launch.html](http://www.cisco.com/en/US/products/products_catalog_links_launch.html)

- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access *Packet* magazine at this URL:

<http://www.cisco.com/go/packet>

- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

- Internet Protocol Journal is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

[http://www.cisco.com/en/US/about/ac123/ac147/about\\_cisco\\_the\\_internet\\_protocol\\_journal.html](http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html)

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

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