



CHAPTER 2

Installing Cisco Emergency Responder 2.0

Cisco Emergency Responder (Cisco ER) 2.0 is distributed on an installation DVD that contains everything that is required to install Cisco ER 2.0, including the Cisco Unified Communications Operating System software.

You must upgrade Cisco ER 2.0 from Cisco ER 1.3.x only. You cannot upgrade directly to Cisco ER 2.0 from earlier versions of Cisco ER, or download Cisco ER 2.0 from the Cisco.com website.

These topics cover the hardware and software requirements and upgrade instructions for Cisco ER:

- [Hardware and Software Prerequisites, page 2-1](#)
- [Before You Install or Upgrade, page 2-1](#)
- [Installing Cisco Emergency Responder 2.0 on a New System, page 2-3](#)
- [Upgrading from Cisco Emergency Responder 1.3 to Cisco Emergency Responder 2.0, page 2-9](#)
- [Upgrading from Cisco Emergency Responder 2.0 to a Later Version, page 2-11](#)

Hardware and Software Prerequisites

Cisco Emergency Responder (Cisco ER) requires specific hardware and software to run properly. Review the following sections before you proceed with the installation or upgrade to Cisco ER 2.0:

- See the *Release Notes for Cisco Emergency Responder 2.0* to verify that you have all the hardware and software, and in the supported versions, that you must install for Cisco ER and to check that your Cisco MCS Unified Communications Manager Appliance platform provides the Cisco ER capabilities to meet your configuration needs. (You can also use equivalent Cisco-certified servers.)
- See the “[Determining Your License Requirements](#)” section on [page 1-6](#) to make sure that you have all the required license keys available before you begin the installation process.

Before You Install or Upgrade

The Cisco ER 2.0 installation process installs both the platform software and the Cisco ER 2.0 software. During the installation, you will be prompted to enter information needed by the system to complete the installation.

**Note**

Cisco recommends that you perform the installation or upgrade during off-peak hours. The installation/upgrade procedure completely reformats the hard disk, so Cisco ER will be unavailable for the duration of the installation or upgrade.

Review the following information before you install or upgrade your system to Cisco ER 2.0:

- Cisco ER Versions:
 - Different versions of Cisco ER cannot be deployed in the same Cisco ER group. The primary and the standby Cisco ER servers must be running the same version of Cisco ER. If you are upgrading to Cisco ER 2.0, make sure to upgrade both Cisco ER servers to version 2.0.

**Note**

Cisco ER 2.0 supports interoperability between two server groups in a cluster running different versions of Cisco ER. One server group in a cluster may be running Cisco ER 2.0 while another server group in the cluster is running Cisco ER 1.3. However, Cisco ER 2.0 will not interoperate with versions earlier than Cisco ER 1.3.

- Determine and list your Cisco ER hostname 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.
 - The hostname for the Cisco ER 2.0 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 2.0.
 - Decide on a password for the local CERAdministrator. If you encounter problems with the Subscriber database setup, go to the Admin Utility web interface and use the **Update>Publisher** page to fix the problem. For more information, see the [“Using the Cisco Emergency Responder Admin Utility”](#) section on page 11-19.

**Note**

The CERAdministrator password must be at least six characters long and can contain alphanumeric characters, hyphens, and underscores. It must start with an alphanumeric character.

- Ethernet NIC speed and duplex mode:
 - Decide if you want to enable autonegotiation of Ethernet NIC speed and duplex
 - If yes, you don’t need any additional information
 - If no, determine what Ethernet NIC speed and duplex mode you will use
- DHCP Configuration
 - Decide if you want to use the Dynamic Host Configuration Protocol (DHCP) to allocate IP addresses
 - If yes, you don’t need any additional information
 - If no, you will need to know the hostname, IP address, IP mask, and gateway address to enter for the Static Network Configuration

- NTP Client information
 - The system will ask if you want to set up external Network Time Protocol (NTP) servers. Cisco recommends that you use external NTP servers to ensure that the system time is accurate.
 - If you decide to use external NTP servers, you will need to enter the IP address or hostname of the servers.
 - If you do not choose to use external NTP servers, you will need to enter the system date and time clock information manually.
- Decide on a Database Access Security password
 - The system requires a database access security password to allow the nodes in a servergroup to communicate. The password is shared with all nodes in the servergroup.
 - The password must be at least six characters long and can contain alphanumeric characters, hyphens, and underscores. It must start with an alphanumeric character.
- SMTP Host Configuration (optional)
 - Decide if you want to use an SMTP host.
 - If yes, determine the hostname or IP address of the SMTP host.
- Caveats:
 - Once you upgrade your system to Cisco ER 2.0, you cannot downgrade your system to earlier Cisco ER versions.
 - Review the release notes for Cisco ER 2.0 before installation:
http://www.cisco.com/en/US/products/sw/voicesw/ps842/prod_release_notes_list.html

Install the components for Cisco ER 2.0 in the order shown in [Table 2-1](#).

Table 2-1 **Installation Tasks**

Installation Task	For More Information
Install Cisco Unified Communications Manager	http://www.cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html
Install Cisco ER 2.0 as a new installation	Installing Cisco Emergency Responder 2.0 on a New System, page 2-3
Install Cisco ER 2.0 as an upgrade	Upgrading from Cisco Emergency Responder 1.3 to Cisco Emergency Responder 2.0, page 2-9.

Installing Cisco Emergency Responder 2.0 on a New System

This procedure describes how to install Cisco Emergency Responder (Cisco ER) 2.0 as a new installation.

You enter Cisco ER group configuration through the Cisco ER Administration web interface based on Publisher (primary) and Subscriber (secondary) server pairs as described in the following topics:

- [Installing the Cisco Emergency Responder Publisher, page 2-4](#)
- [Installing the Cisco Emergency Responder Subscriber, page 2-8](#)

Installing the Cisco Emergency Responder Publisher



To install Cisco ER 2.0, you install the Publisher (primary) first, then you install the Subscriber (backup) on a separate server. You must install Cisco ER on separate servers from Cisco Unified Communications Manager or any Cisco Unified Communications applications.

Allow approximately 1 hour to perform a new installation.

To install the Publisher, follow these steps:

Procedure

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- Step 1** Insert the Cisco ER 2.0 Installation DVD.
- If the system finds the DVD, you are asked if you want to perform a media check prior to installation to determine if there are any problems with the DVD. The system displays the checksum of the DVD and instructs you to verify this checksum on the Cisco ER 2.0 website.
- At the bottom of the screen you will see instructions for moving between elements and for selecting elements, as follows:
- Use the **Tab** key to advance to the next element
 - Use the **Alt-Tab** key combination to return to the previous element
 - Use the **Space** bar to select a highlighted element
- If you choose to perform the media check, the system performs the media check and displays the results. If the result of the media check is **PASS**, click **OK**. The system install begins the installation. Skip to [Step 2](#).
- If the result of the media check is **FAIL**, obtain a new installation DVD from Cisco Systems.
- Step 2** The Cisco Unified Communications system installer starts. The Product Deployment Selection screen displays a message saying the Cisco Emergency Responder product suite will be installed. Click **OK** to continue.
- Step 3** The Proceed with Install page displays the current software version on the hard drive (if any) and the software version on the installation DVD.
- If you are performing a fresh installation, there will be no software on the hard drive and the system asks if you want to proceed with the installation. Click **Yes** to proceed.
- If you are performing an upgrade, the system displays the current software version and asks if you want to overwrite the hard drive. Click **Yes** to proceed.
- If you click **Yes**, the system continues with the installation and the Platform Configuration Wizard appears.
- If you click **No**, the installation is terminated.
- Step 4** On the Platform Configuration Wizard page, click **Proceed** to continue with the platform installation. The Import Windows Data page appears. Skip to [Step 5](#).
- If you click **Skip**, the system will install both the platform and Cisco ER software without prompting you to provide any information during the installation. Once the installation is completed and the system reboots, you will be prompted to enter the required configuration details.
- Step 5** The Import Windows Data page prompts you to import data from a Windows version of Cisco ER. This page does not apply to fresh installations or to upgrades from earlier Linux-based versions of Cisco ER. Click **No** to proceed with the fresh installation. The Basic Install page appears.
- Step 6** Click **Continue** to proceed. The Timezone Configuration page appears.

- Step 7** Choose the correct timezone to use from the list provided.
- Use the following keys to move between elements on the Timezone Configuration page:
- **Arrow Up** or **Arrow Down** to select a timezone from the list
 - **Tab** to move to another field
- After selecting the correct timezone, click **OK**. The Auto Negotiation Configuration page appears.
- Step 8** Click **Yes** to enable autonegotiation of the Ethernet NIC speed and duplex mode. The DHCP Configuration page appears. If you click **Yes**, skip to [Step 10](#).
- If you click **No**, the NIC Speed and Duplex Configuration page appears.
- Step 9** On the NIC Speed and Duplex Configuration page, do the following:
- a. Select the NIC Speed. The available options are 10 Megabit, 100 Megabit, or 1000 Megabit.
 - b. Select the NIC Duplex setting. The available options are Full or Half.
 - c. Click **OK**. The DHCP Configuration page appears.
- Step 10** Click **Yes** if you want to use Dynamic Host Configuration Protocol (DHCP). The Administration Login Configuration page appears. Skip to [Step 14](#).
- If you click **No**, the Static Network Configuration page appears.
- Step 11** If you chose not to use DHCP, enter the following information on the Static Network Configuration page:
- Host Name
 - IP Address
 - IP Mask
 - Gateway (GW) Address
-  **Note** When upgrading from a Windows-based version of Cisco ER, the Host Name and IP Address must be the same as the Cisco ER 1.3.x server that is being upgraded.
- Click **OK**. The DNS Client Configuration page appears.
- Step 12** On the DNS Client Configuration page, you are asked if you want to configure the Domain Name System (DNS) client.
-  **Note** Click the **Help** button for details on configuring DNS.
- If you select **Yes**, a second DNS Client Configuration page appears.
- If you select **No**, the Administration Login Configuration page appears. Skip to [Step 14](#).
- Step 13** On the second DNS Client Configuration page, you are prompted to enter the following information:
- Primary
 - Secondary DNS (optional)
 - Domain
- Click **OK**. The Administration Login Configuration page appears.
- Step 14** On the Administration Login Configuration page, enter an ID and password for the Administrator account. This password is used to access the CLI and the Cisco Unified OS Administration and Disaster Recovery System (DRS) websites. Click **Help** to display guidelines for creating this password.

When you have finished, click **OK**. The Certificate Information page appears.

Step 15 Enter the following information on the Certificate Information page:

- Organization
- Unit
- Location
- State
- Country (select from the scroll-down menu).

Click **OK**. The Publisher Configuration page appears.

Step 16 Based on the type of installation you are performing, do one of the following:

- If the server you are configuring is the Publisher in the server group, click **Yes**. The Network Time Protocol Client Configuration page appears. Proceed to [Step 17](#).
- If the server you are installing is not the Publisher in the server group, you must first configure this server on the Publisher before you can proceed. Also, this server must have network access to the Publisher, which must be in service for the installation to complete successfully. Click **No** only if you are configuring the Subscriber. See the [“Installing the Cisco Emergency Responder Subscriber” section on page 2-8](#) for information on installing the Subscriber.
- If you are performing an upgrade from Cisco ER 1.3.x, click **Yes**. Upgrades from Cisco ER 1.3.x can only be done on a Publisher. If you click **No**, you will receive an error message.

Step 17 On the Network Time Protocol Client Configuration page, you are asked if you want to set up external Network Time Protocol (NTP) servers.



Note Cisco strongly recommends that you use external NTP servers to ensure that the system time is kept accurate.

If you click **Yes**, the system displays a second Network Time Protocol Client Configuration page. In the fields provided, enter the IP address or hostname of the external NTP servers, then click **OK**. The Database Access Security Configuration page displays. Skip to [Step 18](#).

If you click **No**, the Hardware Clock Configuration page appears. Enter the following information:

- Year [yyyy]
- Month [mm]
- Day [dd]
- Hour [hh]
- Minute [mm]
- Second [ss]

When you have finished entering this information, click **OK**. The Database Access Security Configuration page appears.

Step 18 On the Database Access Security Configuration page, enter the security password and then confirm the password in the fields provided.



Note The security password must be at least six characters long and can contain alphanumeric characters, hyphens, and underscores. It must start with an alphanumeric character. The security password is used for secure communications between Cisco ER server groups when performing installation/upgrade, DRS backup or restore, and “Point to a new Publisher” operations.

Click **Help** to display guidelines. When you have finished, click **OK**. The SMTP Host Configuration page appears.

- Step 19** You are asked if you want to configure a Simple Mail Transport Protocol (SMTP) host. This step is optional.
- If you click **Yes**, a second SMTP Host Configuration page appears. Click **Help** for guidelines, then enter the SMTP hostname or IP address in the field provided. When you are finished, click **OK**. The Platform Configuration Confirmation page appears.
 - If you click **No**, the Platform Configuration Confirmation page appears.
- Step 20** On the Platform Configuration Confirmation page, do one of the following:
- Select **OK** to save the platform configuration information and continue with the installation. The Cisco Emergency Responder Configuration page appears.



Note Once you select **OK**, you will not be able to modify the platform configuration information.

- Select **Back** if you want to return to the previous page to make modifications. Continue to select **Back** to scroll through each platform configuration page.
 - Select **Cancel** to cancel the installation.
- Step 21** On the Cisco Emergency Responder Configuration page, do the following:
- Enter the emergency number (for example, **911**).
 - Select the Cisco Unified Communications Manager version. Use the **Up** or **Down** arrows to select the version number, then select **OK**.

The Application User Password Configuration page appears.

- Step 22** On the Application User Password Configuration page, enter and then confirm the application user password. This password is associated with the default CERAdministrator account and is used to log in to the Cisco ER Administration webpage. Click **Help** for guidelines.

When you are finished, click **OK**. The Cisco Emergency Responder Configuration Confirmation page appears.

- Step 23** On the Cisco Emergency Responder Configuration Confirmation page, do one of the following:
- Select **OK** to save the Cisco Emergency Responder configuration information and continue with the installation. The system continues the installation process and then reboots.



Caution Once you select **OK**, you will not be able to modify the Cisco Emergency Responder configuration information.

- Select **Back** if you want to return to the previous page to make modifications. Continue to select **Back** to scroll through each Cisco ER configuration page.
- Select **Cancel** to cancel the installation.

Step 24 After the system reboots, it checks the status of various system components. If the system finds any problems, you will be prompted to correct the problem.

If the system does not find any problems, the installation process continues. The system will eject the installation DVD, reboot, and then finish the installation. When the installation is complete, a command-line interface prompt appears.



Note During this process, the system will display the MAC address of the Publisher. Write down the MAC address when it displays; you will use the MAC address later to acquire Cisco ER licenses. If you are not able to capture the MAC address during installation, you can look it up later. See the [“Server Licenses” section on page 1-5](#) for information on looking up the server MAC address.

Step 25 To bring up the Cisco ER 2.0 websites, go to any Windows system on the network, start a supported web browser, and enter the following URL:

`http://your CER hostname/`

or

`http://your CER IP address/`

Installing the Cisco Emergency Responder Subscriber

After you install the Publisher, you must install the Cisco Emergency Responder (Cisco ER) Subscriber. You must install the Subscriber on a separate server from the Cisco ER Publisher.



Caution

You must complete the installation of the Publisher, which includes a system reboot, before you start to install the Subscriber.

To install the Cisco ER 2.0 Subscriber, follow these steps:

Procedure

- Step 1** On the Publisher server, add the details about the Subscriber server by doing the following:
- Log in the Publisher’s Cisco ER Administration website.
 - Select **System > Add Subscriber**. The Add Server page appears.
 - Enter the hostname and IP address of the new Subscriber and click **Insert**. The Add Subscriber appears again.
 - In the **Configured Servers** list, check that the hostname/IP address of the new Subscriber is listed.
- Step 2** Follows [Step 1](#) through [Step 15](#) in the [“Installing Cisco Emergency Responder 2.0 on a New System”](#) section. After you complete [Step 15](#), the Publisher Configuration page appears.
- Step 3** On the Publisher Configuration page, select **No** to indicate that you are installing a Subscriber, not a Publisher. The system displays a warning saying that if this is not the Publisher, you must first configure this server using the Publisher’s Administration web interface before you can proceed (see [Step 1](#) of this procedure for more information). Also, this server being added must have network access to the Publisher, which must be in service for the installation to complete successfully.

Click **OK** to close the warning.

Step 4 The Publisher Access Configuration page appears. Enter the following:

- Publisher's hostname
- Publisher's IP address
- Publisher's Database/Security password

Step 5 Verify that the Publisher information is correct and click **OK**.

Step 6 The Platform Configuration Complete page appears. Select one of the following options:

- If the Publisher information is correct, click **OK**.
- If the information is not correct, click the **Back** button and make the needed corrections on the Publisher Access Configuration page. Then, click **OK**.

The installation of the Cisco ER Subscriber begins and will take an additional 20 to 30 minutes to complete.

Step 7 When the installation completes, go to the Cisco ER Administration website on the Subscriber to verify that the Subscriber was installed successfully. If the installation succeeded, a message saying "Primary Cisco Emergency Responder is active" will appear. This message indicates that the Subscriber was installed successfully.



Note

If the Subscriber installation cannot validate the Publisher, see the "[Cannot Validate Publisher](#)" section on page 11-15 in the Troubleshooting chapter.

Using the DMA Tool

Before you can upgrade from Cisco ER 1.3 to Cisco ER 2.0, you must use the Data Migration Assistant (DMA) tool to create a migration file containing your Cisco ER 1.3 configuration information. As part of the upgrade process, you will be prompted to provide the location of this migration file.

For information on using the DMA tool, see the *Data Migration Assistant Administration Guide, Release 5.1(1)* or later.

Upgrading from Cisco Emergency Responder 1.3 to Cisco Emergency Responder 2.0

This procedure describes how to upgrade from Cisco Emergency Responder (Cisco ER) 1.3 to Cisco ER 2.0.



Note

The following upgrade procedure applies to upgrading only the Publisher node from Cisco ER 1.3 to Cisco ER 2.0. For Subscriber nodes, you must perform a fresh installation of Cisco ER 2.0. See the "[Installing the Cisco Emergency Responder Subscriber](#)" section on page 2-8 for further information.

In addition, upgrades to Cisco ER 2.0 can be performed only from Cisco ER 1.3(1a) and 1.3(2).

Before You Begin

To migrate your existing data from a Cisco ER 1.3 system to Cisco ER 2.0, you must use the Data Migration Assistant (DMA) tool before beginning the upgrade process. See the [“Using the DMA Tool” section on page 2-9](#) for information on using the DMA tool.

In addition, you should perform a backup of your CER 1.3.x system using Cisco IP Telephony Backup and Restore System (BARS) before starting the upgrade. For information on performing a backup using BARS, go to the following URL and scroll down to find the *Cisco IP Telephony Backup and Restore System (BARS) Administration Guide* for your release version:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

To upgrade from Cisco ER 1,3 to Cisco ER 2.0, follow these steps:

Procedure

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- Step 1** Follows [Step 1](#) through [Step 4](#) in the [“Installing the Cisco Emergency Responder Publisher”](#) section. After you complete [Step 4](#), the Select Type of Installation page appears.
- Step 2** On the Select Type of Installation page, select **Windows Upgrade** and click **OK**.
- Step 3** Follow [Step 7](#) through [Step 19](#) in the section [“Installing the Cisco Emergency Responder Publisher”](#). After you finish [Step 19](#), the DMA Retrieval Mechanism Configuration page appears.
- Step 4** The DMA Retrieval wizard prompts you to choose one of the DMA retrieval methods. The options are as follows:
- SFTP
 - FTP
 - TAPE
- Select the retrieval mechanism and click **OK**. If you chose SFTP or FTP, proceed to [Step 5](#). If you chose TAPE, proceed to [Step 6](#).
- Step 5** The wizard displays the DMA Backup Configuration page.



Note The installation wizard prompts you for the location of the tar ball that is created by the DMA tool. See the [“Using the DMA Tool” section on page 2-9](#) for information on using the DMA tool.

Enter the following information:

- Hostname/IP address of the sftp or ftp server on which the tar ball is located
- Remote file path
- Remote File Name of the tar ball
- Remote Login ID for the ftp/sftp server
- Remote password for the ftp/sftp server

Click **OK**.

- Step 6** If you chose TAPE in [Step 4](#), insert the tape containing the tar ball file into the tape drive.
- Step 7** Follow [Step 20](#) through [Step 25](#) in the [“Installing the Cisco Emergency Responder Publisher” section on page 2-4](#) section to complete the upgrade from Cisco ER 1.3 to Cisco ER 2.0.
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Upgrading from Cisco Emergency Responder 2.0 to a Later Version

To upgrade from one version of Cisco ER 2.0 to a later version of Cisco ER 2.0, you use the Cisco Unified OS Administration web interface. See the [“Performing Software Upgrades” section on page 7-13](#) for information on upgrading from one version of Cisco ER 2.0 to a later version of Cisco ER 2.0.

