Cisco Unified Web and E-Mail Interaction Manager Installation Guide

For Unified Contact Center Enterprise

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Preface

- Audience
- Using This Guide
- Document Conventions
- Other Learning Resources
Welcome to Cisco® Interaction Manager™, multichannel interaction software used by businesses all over the world to build and sustain customer relationships. A unified suite of the industry’s best applications for web and email interaction management, it is the backbone of many innovative contact center and customer service helpdesk organizations.

Cisco Interaction Manager includes a common platform and one or both of the following applications:

- Cisco Unified Web Interaction Manager (Unified WIM)
- Cisco Unified E-Mail Interaction Manager (Unified EIM)

**Audience**

*Cisco Unified Web and E-Mail Interaction Manager Installation Guide* is intended for installation engineers, system administrators, database administrators, and others who are responsible for installing and maintaining Cisco Interaction Manager installations that are integrated with Cisco Unified Contact Center Enterprise (Unified CCE).

**Using This Guide**

The best way to use the installation guide is to print it, read the entire guide, and then start at the beginning and complete each pre-installation, installation, and post-installation task, in sequence. To assist you with the installation process, this guide includes a work sheet that, when completed, will have all the information required to install the application. It also has a check list that you can use to track your progress.

- Find Appendix B: Work Sheet on page 107. Complete this work sheet and use it as you proceed through the installation process.
- Find Appendix A: Check List on page 104. Use it to mark off items as you progress through the installation process.
Document Conventions

This guide uses the following typographical conventions.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bold</strong></td>
<td>Labels of items on the user interface, such as buttons, boxes, and lists. Or text that must be typed by the user.</td>
</tr>
<tr>
<td><code>Monospace</code></td>
<td>The name of a file or folder, a database table column or value, or a command.</td>
</tr>
<tr>
<td><code>Variable</code></td>
<td>User-specific text; varies from one user or installation to another.</td>
</tr>
</tbody>
</table>

Other Learning Resources

Various learning tools are available within the product, as well as on the product CD, and our web site. You can also request formal end-user or technical training.

Online Help

The product includes topic-based as well as context-sensitive help.

<table>
<thead>
<tr>
<th>Use</th>
<th>To view</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔄 Help button</td>
<td>Topics in <em>Cisco Unified Web and E-Mail Interaction Manager Help</em>; the Help button appears in the console toolbar on every screen.</td>
</tr>
<tr>
<td>F1 keypad button</td>
<td>Context-sensitive information about the item selected on the screen.</td>
</tr>
</tbody>
</table>

Document Set

The latest versions of all Cisco documentation can be found online at http://www.cisco.com

- All Unified EIM documentation can be found online at http://www.cisco.com/en/US/products/ps7236/tsd_products_support_series_home.html
- All Unified WIM documentation can be found online at http://www.cisco.com/en/US/products/ps7233/tsd_products_support_series_home.html
In particular, Release Notes for these products can be found at http://www.cisco.com/en/US/products/ps7236/prod_release_notes_list.html

For general access to Cisco Voice and Unified Communications documentation, go to http://www.cisco.com/en/US/products/sw/voicesw/tsd_products_support_category_home.html

The document set contains the following guides:

- *Hardware and System Software Specification for Cisco Unified Web and E-Mail Interaction Manager*
- *Cisco Unified Web and E-Mail Interaction Manager Installation Guide*
- *Cisco Unified Web and E-Mail Interaction Manager Browser Settings Guide*

**User guides for agents and supervisors**

- *Cisco Unified Web and E-Mail Interaction Manager Agent’s Guide*
- *Cisco Unified Web and E-Mail Interaction Manager Supervisor’s Guide*

**User guides for Knowledge Base managers and authors**

- *Cisco Unified Web and E-Mail Interaction Manager Knowledge Base Author’s Guide*

**User guides for administrators**

- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Administration Console*
- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Routing and Workflows*
- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Chat and Collaboration Resources*
- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Email Resources*
- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Data Adapters*
- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Reports Console*
- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to System Console*
- *Cisco Unified Web and E-Mail Interaction Manager Administrator’s Guide to Tools Console*
Planning

- Identifying Components
- Understanding Configuration Options
- Planning Components for Specific Configurations
- Getting Started
Cisco Interaction Manager can be installed in multiple configurations, ranging from a simple single-server installation, to many flavors of distributed installations. This chapter describes the components that make up a Cisco Interaction Manager deployment and available configuration options. Different types of distributed-server configurations are also discussed. For deployment recommendations for various scenarios refer to the *Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide*.

A work sheet is provided on page 107. Complete this sheet before beginning the installation. You will need to refer to this sheet often during the installation process. A checklist is provided on page 104. Use this sheet to check off tasks as you complete them.

## Identifying Components

A Cisco Interaction Manager installation has six components. They are:

1. **File server**: Houses installation, configuration, and property files, email and article attachments, report templates, locale-specific strings used in the application, and all libraries required to run the application. There is only one file server in a Cisco Interaction Manager configuration.

2. **Database server**: Houses the application databases. The installation program creates the following databases:
   - A master database, where system level information is stored.
   - An active database, where all business related information is stored. This is also referred to as the partition database.
   - An archive database, where all archived data is stored.
   - A reports database, where all data used by the reports module is stored. This database is created only in deployments that use the enterprise edition of MSSQL Server.

   The master and active databases are installed on the same machine. The archive and reports databases can be installed on different machines.

3. **Messaging server**: Manages asynchronous communication between the various components of the product. In the application, java messaging clients use the publisher-subscriber model to interact with each other, and the messaging server controls these interactions. There is only one messaging server in a configuration.

4. **Application server**: Servers as a web container (also known as the JSP or Servlet engine) as well as the Enterprise Java Bean (EJB) container. The web server routes all browser requests for .jsp files to the application server. Here requests are processed, and dynamic content is generated. A configuration can have more than one application server. Each application server requires a corresponding web server.

5. **Web server**: Gets requests from, and serves static content such as images, java applets, jar files, and client-side JavaScript code to, a web browser. All requests for .jsp files are routed to the application server for further processing and generation of dynamic content. The web server component is often installed on the same machine as the application server, but can also be installed on a different physical machine. A configuration can have multiple web servers. In the case of Unified WIM, the web server is always installed on a separate machine outside the firewall for security reasons.
6. **Services server**: Hosts remote services that execute business logic and rules to support the various features of the application. Services such as the Retriever, which pulls emails from mail servers, the Dispatcher which sends emails out of the system, and the Agent Assignment Service that assigns chats to agents, run on the services server. Framework services that manage these remote services also run on the services server. There is only one services server in a configuration.

**Understanding Configuration Options**

The six main components are installed in any one of the following three types of configurations:

- Single-Server
- Split-Server
- Distributed-Server

Before installing the application in a production environment, ensure that you have consulted the *Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide* for deployment recommendations.

**Single-Server**

- This is the simplest type of configuration. All components are installed on a single machine.
A true single-server deployment is possible only for Unified EIM installations. If the installation includes Unified WIM, it becomes a collocated deployment, where the web server is installed on a separate machine outside the firewall.

**Split-Server**

- In a split-server configuration, components are split across two machines. The database is on one machine, while all other components are on the other machine.

A true split-server deployment is possible only for Unified EIM installations. If the installation includes Unified WIM, it becomes a collocated deployment, where the web server is installed on a separate machine outside the firewall.
Distributed-Server

- Components are distributed over three or more machines. Several options are available for distributed-server configurations. The database is usually installed on a dedicated server, and other components are spread over two or more machines. If the installation includes Unified WIM, the web server is installed on a separate machine outside the firewall.

Simple Distribution

In this configuration, the database server is installed on one machine, the services server is on a second machine, and the file, messaging, application, and web servers are on a third machine. This configuration is possible only for Unified EIM installations. If the installation includes Unified WIM, it becomes a collocated deployment, where the web server is installed on a separate machine outside the firewall.
**Distributed Configuration With Web Server Outside a Firewall**

In this configuration, each component is on a separate machine, with the web server installed outside the firewall. The application, messaging, services and web servers in this configuration can be restarted without restarting any other servers.

![Distributed configuration with web server outside a firewall](image)

**Complex Distributed Configuration With Components on Different Machines**

This configuration has each component on a different machine, with the following additional features:

- Reports and Archive DBs are installed on a separate machine. To plan your database installation, refer to “Planning Database Servers” on page 17.
- Multiple web-application server pairs are used with a load balancer. For more information on planning the application and web servers, refer to “Planning Application and Web Servers” on page 17.

![Complex distributed-server configuration](image)
Planning Components for Specific Configurations

Planning the Database Server

The installation program creates the master, active, and archive databases. If the enterprise edition of MSSQL Server is used, a reports database is also created.

Installing the Application on a SQL Server 2005 Cluster

Cisco Interaction Manager can be installed in a Microsoft SQL Server 2005 clustered environment. To install and configure the SQL Server cluster, follow the instructions in the Microsoft SQL Server 2005 documentation. For details, refer to the following website.


Planning Database Servers

- The master and active databases are installed on the same database server. Since the archive database can grow to be quite large, and operations performed on it can be slower, and can impact the overall performance of the system, it is typically installed on a different machine. This is optional, but it is the recommended practice. Deployments that use the enterprise edition of MSSQL Server also have the option of installing the Reports database on a different machine.

If either the archive or the reports database is to be on a different machine, make sure that you complete the steps described in “Configuring Database Servers” on page 25. You may also need to complete certain tasks described in “Setting Up User Accounts and Permissions” on page 22.

Choosing Authentication Method for Database Connectivity

- The application supports two methods of authentication for connecting to the database.
  - SQL Server authentication
  - Windows authentication

- As part of the installation process, you will be asked to select the authentication method. Your selection will depend on the security policies of your organization, and should be consistent with the authentication method configured in SQL Server.

If you choose Windows authentication, certain additional steps must be completed before you begin installing the application. These steps are outlined in the “Setting Up User Accounts and Permissions” on page 22. Also refer to “Configuring Database Servers” on page 25.

Planning Application and Web Servers

- Cisco Interaction Manager can be installed with multiple application servers. The number of application servers in your configuration depends on the total number of concurrent agents to be supported.
Before installing the application, use the *Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide* to help you determine the best possible configuration for your requirements.

- Cisco Interaction Manager can be installed with multiple web servers. The number of web servers in a deployment depends on the number of application servers in the configuration.

To prevent overloading any one application server, Cisco Interaction Manager requires a one to one relationship between a web server and an application server. This means that for every application server in the configuration, there must also be a web server. Further, to ensure that load is balanced evenly among all web servers, a load balancer that directs requests to web servers is required. Agent and customer requests are received by the load balancer, which in turn directs them to the web servers.

### Planning the Messaging Server

- The messaging server can be installed on a separate machine, or on the same machine as one of the application servers in your configuration. To do this, select both the Application server and the Messaging server items in the Installation options screen while installing a distributed-server configuration.

If the messaging server is on a separate machine, it can be restarted independently, without affecting any of the application servers in the configuration.

- There can be only one messaging server in your configuration, but there can be multiple application servers.

### Getting Started

The installation process involves completing the following activities, in sequence:

- **Pre-installation tasks**: To be performed before you begin the installation. For detailed instructions, refer to “Pre-Installation Tasks” on page 19.

- **Installation tasks**: Running the installation program on all the servers in your configuration. Details are in “Installation Process” on page 34.

- **Integrating with Unified CCE**: Running the integration wizard to integrate Cisco Interaction Manager with Unified CCE. Details are in “Unified CCE Integration” on page 71.

- **Post installation tasks**: To be performed after running the installation program. For details, refer to “Post-Installation Tasks” on page 81.
Pre-Installation Tasks

- Verifying System Requirements
- Acquiring Licenses
- Verifying Network Configuration
- Setting Up User Accounts and Permissions
- Configuring Database Server Settings
- Installing JBoss
- Creating a JBoss Instance
- Installing Sun JDK
- Verifying Web Server Settings
- Configuring SMTP Port in Virus Scanners
- Completing Installation Work Sheet
- Verifying Unified CCE Configuration
This chapter describes pre-installation procedures that need to be completed before beginning the installation process. As you need to prepare the installation environment in advance, read this installation guide and the following documents before planning and implementing the installation:

- *Cisco Unified Web and E-Mail Interaction Manager Release Notes*
- *Hardware and System Software Specification for Cisco Unified Web and E-Mail Interaction Manager*
- *Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide*

## Verifying System Requirements

### Removing Spaces From Directory Names

- Ensure that the complete path to your JBoss and JDK home directories do not contain any spaces. For example, if the path to the JDK folder is `C:\JDK 150_12`, update it to `C:\JDK150_12`.

### Bandwidth and Hardware Requirements

**To verify bandwidth and hardware requirements:**

- Confirm that the physical servers required for the configuration of your choice is available. Also confirm that adequate bandwidth is available. The following resources will help you determine the specific requirements for your deployment:
  - *Hardware and System Software Specification for Cisco Unified Web and E-Mail Interaction Manager*
  - *Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide*

### Software Requirements

*Hardware and System Software Specification for Cisco Unified Web and E-Mail Interaction Manager* lists the software environment that must be set up on the various server-class machines.

If you are installing a split, collocated, or distributed deployment, refer to the “Setting Up User Accounts and Permissions” on page 22.

---

**Important:** You must use the same domain account to install the software environment and Cisco Interaction Manager.

Create the environment in the following order.

**To set up the required software environment:**

1. On the messaging server, and all application server machines:
   a. Install JBoss using the procedure described in “Installing JBoss” on page 30.
   b. Create a JBoss instance (see “Creating a JBoss Instance” on page 31).
c. Install JDK 1.5_12 (included on the Application CD).

2. On the web server machines:
- Install Microsoft IIS.

3. On the services server machine:
- Install JDK 1.5_12 (included on the Cisco product CD).

4. On database server machines:
   a. Install Microsoft® SQL Server® 2005 SP 3. While installing SQL server:
      - Select the default SQL instance. This is not mandatory. You can use named instances, but make sure you use named instances on all the database servers in the configuration.
      - Enable mixed-mode authentication if you plan to use Windows authentication for database connectivity. Additional steps required for Windows authentication are outlined in “Setting Up User Accounts and Permissions” on page 22, and in “Configuring Database Server Settings” on page 25.
      - On the Collation settings screen, choose SQL Collations and select the following option: Dictionary order, case-insensitive, for use with 1252 Character Set. Although this is the recommended collation, it is not mandatory. Any ASCII, case insensitive collation can be used. The application databases will be installed using the collation that is configured for MSSQL Server.
   b. Once SQL Server is installed, go to SQL Enterprise Manager, and ensure that the Full-text Search service is running. Also refer to “Running SQL Server Services” on page 27.
   c. If the configuration includes more than one database server, ensure that all the database server machines are in the same domain as the other machines in the configuration, and that they are all on either the default instance or named instances. See “Configuring Database Servers” on page 25.
      Also, ensure that MS DTC Settings are configured. See “Configuring Microsoft DTC Settings” on page 27.

5. Ensure that an accessible POP3 server is running.

6. Ensure that Cisco Security Agent is not running on any machine in the configuration.

**Disabling Loopback Adapter Configuration**

- Cisco Interaction Manager cannot be installed on machines where Microsoft Loopback Adapter is configured. Skip this section if the machines in the configuration do not use the Loopback Adapter.

Before you proceed with the installation, disable Loopback Adapter configuration on all machines in the configuration.

**To disable Loopback Adapter:**

1. Go to Start > Control Panel > Network Connections.
2. Locate the local area connection for Microsoft Loopback Adapter.
3. Right-click and select Disable.
Applying Hotfix for Windows 2003 SP2

- If your configuration includes servers with Broadcom network cards, or network cards that have a Broadcom chip set integrated into them, hotfix KB948496 for Windows 2003 SP2 must be applied on each such server. Verify that this hotfix has been applied before beginning the installation process.

Acquiring Licenses

- Make sure you have the Unified WIM and Unified EIM licenses ready with you before you begin the installation. You will need them to complete the installation process.
  
  Contact Cisco Licence Team for the licenses.

Verifying Network Configuration

These tasks must be completed in all collocated, split-server, and distributed-server configurations.

To verify network configuration:

1. Ensure that all machines other than the web server, are in the same Active Directory domain. The web server does not need to be installed in the same domain. Note that the application cannot be installed in a workgroup.

2. Ensure that all the machines are either assigned static IP addresses, or in cases where the IP address is assigned dynamically, are set to renew the same IP address upon lease expiry.

3. Ensure that all the machines are in the same LAN.

4. Ensure that the system clocks of all the machines are synchronized.

Setting Up User Accounts and Permissions

You will need administrator privileges on the local system to perform the installation.

In all single-server configurations, and split-server configurations that do not require Windows authentication for database connectivity, a local username, with administrator privileges, can be used.

For collocated and split-server configurations that are using Windows authentication, and all distributed-server configurations, a domain user account is required.

Setting Up Domain Account

Skip this section if you are installing a single-server configuration, or a split-server that does not use Windows authentication.
Request your IT department to create a domain user account for exclusive use by Cisco Interaction Manager. The domain user account needs the **Log on as a Service** privilege on each of the servers used in deployment. It does not require the **Interactive Logon** privilege.

You will use this account to install and configure the software environment as well as Cisco Interaction Manager.

---

**Caution:** Do not change the password of the domain account after the application is installed. If you must change it, make sure that you update the IIS directory security settings on web servers, and the login information for all Windows and MSSQL services that use that domain account.

---

### Configuring Permissions on Active Directory Server

If you are using Windows authentication database connectivity, and the configuration includes more than one database server, perform these additional tasks on the Active Directory server. You will need administrator privileges to complete these tasks. Contact your IT administrator for assistance if required.

**To configure permissions:**

1. Go to **Start > Control Panel > Administrative Tools > Component Services**.
2. Select **Active Directory Users and Computers**.
3. Navigate to the domain user account to be used for installation. Right-click and select **Properties**.
   
   - In the Properties window, click the Account tab. Ensure that the following options are **not** selected:
     - Account is sensitive and cannot be delegated.
     - Do not require Kerberos preauthentication.

   ![Set account properties for domain user account](image)

---

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b. Click the Delegation tab. Ensure that the domain user account is trusted for delegation.

Set delegation properties for domain user account

4. In the Active Directory Users and Computers tree, navigate to the database server. Ensure that it is trusted for delegation. Repeat this step for each database server.

Set delegation properties for database server

5. Go to Start > Run > Command to launch the command window and run the following command. This sets the Service Principal Names (SPN) to the domain account for MSSQL service on the database servers.

```
setspn -A MSSQLSvc/ HOST:PORT accountname
```

Run this command for both short and fully qualified host names for all database servers. For example, if there are two database servers, tempv20w5 and tempv20w6, with the user account is MVInstallTeam in the domain1 domain, type

```
setspn -A MSSQLSvc/tempv20w5.company.na:1433 domain1\MVInstallTeam
setspn -A MSSQLSvc/tempv20w5:1433 domain1\MVInstallTeam
setspn -A MSSQLSvc/tempv20w6.company.na:1433 domain1\MVInstallTeam
setspn -A MSSQLSvc/tempv20w6:1433 domain1\MVInstallTeam
```
Configuring Database Server Settings

Verifying Status of SQL Server FullText Search Service

This service is required for text searches.

To verify the status of the SQL Server FullText Search service:
1. Go to Start > Programs > Administrative Tools > Services.
2. Ensure that the SQL Server FullText Search service is running.
3. If it is not running, select the service, and click Start to start the service.

Verifying collation settings

Collation settings are typically chosen while installing SQL Server 2005. Since collations specify the rules for how strings of character data are sorted and compared, based on particular languages, a particular type of collation is required for the application to process and present information accurately. If you have already installed SQL Server 2005, consult your DBA and verify that the collation setting chosen is ASCII (case insensitive).

Configuring Database Servers

Skip this section if the archive and reports databases are on the same machine as the active and master databases. If either database is on a different machine, consult your administrator and verify that:

- All database server machines used in the configuration are in the same domain as all the other Cisco Interaction Manager servers.
- All databases are to be either on named instances or on default instances. For example, if you are using the default instance for the active and master databases, then use the default instance for the other databases as well.

Additional Configuration for Windows Authentication

If you are using Windows authentication, also ensure that the steps outlined in the following section have been completed: “Configuring Permissions on Active Directory Server” on page 23.

After you have completed these tasks, you should be able to able to run a linked server query on each database from a third machine acting as a SQL client.

To run a linked server query and verify the configuration:
1. On any machine that is not one of the database servers to be used in the configuration, and has a SQL client installed on it, log in using the domain user account created for the application.
2. Launch SQL Server Management Studio.
3. Click New Query.
4. If your archive database is on a different machine, create a remote server link on the active database server (the source database) to point to the archive database server (the destination database) using the following SQL script. Replace `DEST_HOST_NAME` with the name of the machine for the archive database.

If your reports database is on a different machine, create a remote server link on the reports database server (the source database) to point to the active database server (the destination database) using the following SQL script. Replace `DEST_HOST_NAME` with the name of the machine for the active database.

```sql
DECLARE @p_linkname VARCHAR(50)
SET @p_linkname = 'DEST_HOST_NAME'
BEGIN
EXEC ('EXEC master.dbo.sp_addlinkedserver @server = '+'@p_linkname+'','
    @srvproduct='''''', @provider = '''SQLNCLI''', @provstr = '''Server='''+@p_linkname+'
''')
EXEC ('EXEC master.dbo.sp_addlinkedsvrlogin @rmtsrvname=' + @p_linkname + ',
    @useself=N''True''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''collation compatible'', @optvalue=N''false''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''data access'', @optvalue=N''true''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''dist'', @optvalue=N''true''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''pub'', @optvalue=N''false''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''rpc'', @optvalue=N''true''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''rpc out'', @optvalue=N''true''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''sub'', @optvalue=N''false''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''connect timeout'', @optvalue=N''0''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''collation name'', @optvalue=null')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''lazy schema validation'', @optvalue=N''false''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''query timeout'', @optvalue=N''0''')
EXEC ('EXEC master.dbo.sp_serveroption @server=' + @p_linkname + ',
    @optname=N''use remote collation'', @optvalue=N''true''')
END
```

5. Now run the following query from the source database server where you created the remote server link. If the archive database is on a different machine, the active database server is the source database. If the reports database is on a different machine, then that server is the source server.

```sql
SELECT * FROM DEST_HOST_NAME.master.dbo.sysdatabases
```

The query should execute successfully and return results.
Running SQL Server Services

- Run the SQL Server Service, and SQL Server Agent Service, using the domain user account on all database servers.
- In single, split, and distributed-server configurations where database servers are configured to run on named instances, and no listener port is configured, the SQL Server Browser service needs to be running when you run the installer.

This service does not have to be running if the database servers are configured to run on the default instance. It is also not required if the database servers are configured to run on named instances, and specific, static listener ports are configured for the named instances.

Configuring Microsoft DTC Settings

The Microsoft Distributed Transaction Coordinator (DTC) service, a component of Microsoft Windows, is responsible for coordinating transactions that span multiple resources like databases. MSDTC settings must be configured on all the database servers in a configuration.

Enabling Network DTC Access

Enable network DTC access on each database server.

To enable network DTC access:
1. Go to Start > Settings > Control Panel.
2. Double-click Add/Remove Programs.
3. In the Add/Remove Programs window, click the Add/Remove Windows Components button.
4. In the Windows Components window, select the **Application Server** option and click the **Details** button.

5. In the Application Server window, select **Enable network DTC access** and click **OK**.

6. In the Windows Components Wizard, click **Next** and then click **Finish**.

**Updating Security Configurations**

Update the security configuration settings on each database server.

**To update security configuration:**

1. Go to **Start > All Programs > Administrative Tools > Component Services**.
2. In the Component Services window, browse to **Component Services > Computers > My Computer**.
3. Right-click **My Computer**, and click **Properties**.
4. In the My Computer Properties window, on the MS DTC tab, click the **Security Configuration** button.
5. In the Security Configuration window, do the following:
   a. In the Security Settings section, select the following two options:
- Network DTC Access
- Enable XA Transactions

b. Within the Network DTC Access section, select the following four options:
   - Allow Remote Clients
   - Allow Remote Administration
   - Transaction Manager Communication - Allow Inbound
   - Transaction Manager Communication - Allow Outbound

c. In the DTC Logon Account section, set the value in the Account field to NT Authority\NetworkService.

Click OK.

Select security configuration

6. In the DTC Console message box, click Yes.
7. Restart the machine.
8. Go to Start > All Programs > Administrative Tools > Services.
9. In the Service window, locate the following two services and stop them.
   - Distributed Transaction Coordinator
   - SQL Server (MSSQLSERVER) for Microsoft SQL 2005.
10. Now, start the two services in the following order:
    a. Distributed Transaction Coordinator
    b. SQL Server (MSSQLSERVER) for Microsoft SQL 2005.
Installing JBoss

Install JBoss on all the machines where the messaging server, and all application server components are going to be installed.

To install JBoss:

1. Copy the `jboss-4.2.3.GA.zip` from the Environment > JBoss folder on the application CD to a temporary location on the hard drive.

2. Use a zip file extraction tool like WinZip to extract the files from the `jboss-4.2.3.GA.zip` file to the location where JBoss is to be installed (`JBoss_Home`), for example, `C:\jboss-4.2.3.GA`.

3. Open the folder to verify that the following folders have been extracted: `bin`, `client`, `docs`, `lib` and `server`. The following files should also be present: `JBossORG-EULA.txt`, `copyright.txt`, `jar-versions.xml`, `lgpl.html` and `readme.html`.

You have now installed JBoss.
4. Once JBoss is installed, the `jboss-4.2.3.GA.zip` file can be deleted from the temporary folder.

### Creating a JBoss Instance

Before beginning the installation program, you need to create a new instance of JBoss on each machine where the messaging server, application server components are going to be installed.

**To create a JBoss instance:**

1. Go to the `JBoss_Home > server` folder.
2. Locate the folder `default`, right-click it, and select Copy.

![Copy the default folder](image)

3. Paste the folder in the same location, `JBoss_Home > server`.
4. Rename the newly copied folder to create a new instance of JBoss. You will need this when you install the application.

![Rename folder to create a new instance of JBoss](image)

Repeat this procedure on the messaging server and all other application server machines.
Installing Sun JDK

- In single, collocated, and split server configurations, install JDK 1.5 Update 12 on the machine on which the file, services, messaging, and application server components are installed.

- In distributed-server configurations, install Sun JDK 1.5 Update 12 on all machines where the messaging, application and services server components are to be installed. The installation program for JDK is included in the Environment folder of the installation package.

Verifying Web Server Settings

- On all machines where the web server is to be installed, ensure that the IIS service is running.

Configuring SMTP Port in Virus Scanners

- Ensure that the virus scanner is configured to allow emails to be sent through the SMTP port (Port 25). In a distributed installation, configure this setting on the services server and all application servers.

Completing Installation Work Sheet

To complete the work sheet:
Consult your IT staff and database administrator and complete the work sheet provided in Appendix B (page 107). You will need this information during the installation process.

Verifying Unified CCE Configuration

- Verify that Unified CCE 7.5 and Microsoft Active Directory (AD) 2003 have been installed on separate servers. Refer to Unified CCE documentation for more details.

- Verify that the Unified CCE and AD servers are in the same network as the Unified WIM and Unified EIM servers and are accessible from the Unified WIM and Unified EIM servers.

- Verify that the items to be used in Unified WIM and Unified EIM are configured in Unified CCE. These include:
  - Peripherals
  - Application Instance
  - Media Classes
  - Media Routing Domains (MRDs)
- Network Voice Response Units (Network VRUs)
- Call Type
- Media Routing Peripheral Gateways (MR PGs)
- Script Selector
- Agent Peripheral Gateway (Agent PG)
- Network Trunk Groups
- Network Trunks
- Application Paths and Path Members
- Agents
- Services
- Skill Groups (IPTA and Non-IPTA)
- ICM Scripts
- Expanded Call Context (ECC) Variables
- CTI Gateways (CG)

For details, see *Cisco Unified Web and E-Mail Interaction Manager Deployment and Maintenance Guide*. 
3 Installation Process

- Installing a Single-Server or Collocated Configuration
- Installing a Split-Server or Collocated Configuration
- Installing a Distributed-Server Configuration
The installation process consists of two parts:

1. Installing Unified WIM and Unified EIM in your chosen configuration using the Cisco Interaction Manager installation program.

2. Integrating Unified WIM and Unified EIM with Unified CCE using the Cisco Interaction Manager Wizard for Unified CCE.

This chapter describes the process of installing the product in single-server, split-server, and distributed-server configurations. After completing the installation process, you can install the integration immediately by starting the Cisco Interaction Manager Integration Wizard. The integration can also be installed later by running the Integration Wizard. The process of installing the integration is described in “Unified CCE Integration” on page 71.

Before beginning the installation, ensure that you have complied with all the prerequisites listed in “Pre-Installation Tasks” on page 19.

---

Important: Make sure you have the Unified WIM and Unified EIM licenses ready with you before you begin the installation. You will need them to complete the installation process.

---

**Installing a Single-Server or Collocated Configuration**

A true single-server deployment is possible only for Unified EIM installations. If the installation includes Unified WIM, it becomes a collocated deployment, where the web server is installed on a separate machine outside the firewall.

Important: Ensure that MSSQL Server, MS Search Service, and MSSQL Server Agent Service are running. Also ensure that Microsoft IIS is running.

**To install a single-server or collocated configuration:**

1. Copy the contents of the installation CD to a temporary directory, `Temp`, on the hard drive.

2. Run `setup_wsjb.exe` from the `Temp` directory.

3. When the Introduction window appears, read the installation instructions. Click Next.
4. In the License Agreement window, review the licensing terms and select the **I accept the terms of the License Agreement** option. Click Next.

5. In the Installation Options window, select the components to install.

If you are installing only Unified EIM, you can set up a pure single-server configuration. In this case, select the following options:
- File Server
- Messaging Server
- Application Server
- Web Server
- Services Server
- Database

Click Next.
If you are installing both applications or only Unified WIM, use a collocated configuration, where the web server is installed on a separate machine outside the firewall. In this case, select the following options:

- File Server
- Messaging Server
- Application Server
- Services Server
- Database

Click Next.

Select installation options for a collocated installation that includes Unified WIM

6. Type the path or browse to the folder where you would like to install Cisco Interaction Manager. Click Next.

Provide a location for the Cisco Interaction Manager home directory

7. In the JBoss Parameters window, provide the following details:

- **JBoss home directory**: Complete path to the directory where JBoss is installed. For example, C:\jboss-4.2.3.GA
- **JBoss instance name**: Name of the JBoss instance you created on page 31.
- **JBoss JNDI port**: Port number used by the JBoss Java Name Directory Interface (JNDI) based naming service. Default value is 2089.
- **JBoss HTTP port**: Port number used by JBoss. Default value is 9001.
- **JBoss HTTP SSL port**: Secure Sockets Layer port number used by JBoss. Default value is 9002.

**Provide JBoss parameters**

8. Type the path or browse to the JDK home directory. Click **Next**.

**Provide the path to the JDK home directory**

9. In the RMI and RMID Parameters window, provide the following details:
   - **RMI registry port**: Port number used by the Remote Method Invocation (RMI) registry naming service. Default value is 15099.
   - **RMI activation port**: Port number used by the RMI Daemon Process. Default value is 15098.
Click Next.

Provide RMI and RMID parameters

Cisco Interaction Manager has two distinct areas: the system area and the partition (or business) area. An administrator type user is created for each area during the installation. In the next two windows, you will be asked for user names and passwords for these two users:

- System Administrator
- Partition Administrator

10. In the Cisco System Administrator Account window, create the first system administrator user account. Provide the following:
   - **User name**: User name for the system administrator.
   - **Password**: Password for the system administrator.
   - **Verify password**: Verify the password.

Click Next.
11. In the Cisco Partition Administrator Account and Partition window, create the first partition administrator user account and the partition. Provide the following:
   - **User name**: User name for the partition administrator.
   - **Password**: Password for the partition administrator.
   - **Verify password**: Verify the password.
   - **Partition name**: Name for the partition.
   - **Description of partition**: Description for the partition.

   Click Next.

![Create the first partition administrator user account and the partition](image)

12. Select the default language for the Knowledge Base. Click **Next**.

![Select language for Knowledge Base](image)

13. In the Mandatory settings window, provide the following information:
   - **Default SMTP server**: The SMTP server defined here is used to send email notifications.
   - **Notification mail redirection from address**: All notification emails are sent from this email address.
Notification mail redirection to address: All notification emails are sent to this address.

14. In the SQL Server Database Authentication window, select between Windows and SQL server authentication. Your selection must be consistent with the authentication configuration in MSSQL Server. Click Next.

Select the database server authentication mode

15. In the Master Database Parameters window, provide the following details:

- **Server name**: Name of the local server on which the MSSQL database is to be installed. If you are using MSSQL Server clustering, specify the name of the Virtual MSSQL Cluster Node that integrates the services running on physical nodes in the cluster. Make sure you provide the DNS host name and not the IP address.

- **Database name**: Name of the master database. The installation program creates the master database with the name you provide here.

- **Server instance name**: Name of the MSSQL Server instance to be used while creating the database. If you are using MSSQL Server clustering, provide the name of the Virtual SQL Service Instance.

- **Database listen port**: Port number of MSSQL Server.
Datafile path: Path to the folder on the database server where you want to create the data file. For example: `MSSQL_Home\MSSQL\Data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.

Datafile initial size: Minimum size of the data file for the database.

Datafile maximum size: Maximum size of the data file for the database.

Datafile increment size: Additional file size limit that will be allocated to a database object after the initial size is full.

Logfile initial size: Minimum size of the log file.

Logfile maximum size: Maximum size of the log file.

Database administrator user name: User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user for the virtual instance used for this database.

Database administrator password: Password of the database administrator.

**Important:** If you select Windows server authentication in the SQL Server Database Authentication window, the fields asking for database administrator user name and password are not displayed.

Cisco Database user name: User name required to connect to the master database. The installation program creates the database and its user.

Cisco Database password: Password for the master database user.

Click Next.

Provide master database parameters

16. In the Partition Database Parameters window, provide the following details:

**Important:** The partition database is created on the same database server as the master database.

Server name: Name of the local server on which your MSSQL database is installed. The installation program uses the Server name that you entered for the master database. If you are using MSSQL Server clustering, this is the name of the Virtual MSSQL Cluster Node that integrates the services running on physical nodes in the cluster.
- **Database name:** Name of the partition database. The installation program creates a database with the name you type here.
- **Server instance name:** Name of the MSSQL Server instance to be used while creating the database. The installation program uses the Server instance name that you entered for the master database. If you are using MSSQL Server clustering, this is the name of the Virtual SQL Service Instance.
- **Database listen port:** Port number of MSSQL Server.
- **Datafile path:** Path of the folder on the database server, where you want to create the data file. For example: `MSSQL_Home\MSSQL\Data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.
- **Datafile initial size:** Minimum size of the data file for the database.
- **Datafile maximum size:** Maximum size of the data file for the database.
- **Datafile increment size:** Additional file size limit that will be allocated to a database object after the initial size is full.
- **Logfile initial size:** Minimum size of the log file.
- **Logfile maximum size:** Maximum size of the log file.
- **Database administrator user name:** User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user for the virtual instance used for this database.
- **Database administrator password:** Password of the database administrator.

**Important:** If you select Windows server authentication in the SQL Server Database Authentication window, then the fields asking for database administrator details are not displayed.

- **Cisco Database user name:** User name required to connect to the partition database. The installation program creates this user.
- **Cisco Database password:** Password for database user.

Click Next.
17. In the Archive Database Parameters window, provide the following details:

- **Server name**: Name of the local server on which your MSSQL database is installed. If you are using MSSQL Server clustering, specify the name of the Virtual MSSQL Cluster Node that integrates the services running on physical nodes in the cluster. Make sure you provide the DNS host name and not the IP address of the server.

- **Database name**: Name of the archive database. The installation program creates a database with the name you type here.

- **Server instance name**: Name of the MSSQL Server instance to be used while creating the database. If you are using MSSQL Server clustering, provide the name of the Virtual SQL Service Instance.

- **Database listen port**: Port number of MSSQL Server.

- **Datafile path**: Path of the folder on the database server, where you want to create the data file. For example: `MSSQL_Home\MSSQL\Data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.

- **Datafile initial size**: Minimum size of the data file for the database.

- **Datafile maximum size**: Maximum size of the data file for the database.

- **Datafile increment size**: Additional file size limit that will be allocated to a database object after the initial size is full.

- **Logfile initial size**: Minimum size of the log file.

- **Logfile maximum size**: Maximum size of the log file.

- **Database administrator user name**: User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user for the virtual instance used for this database.

- **Database administrator password**: Password of the database administrator.

---

**Important**: Archive database need not be created on the same database server as the master and partition databases.

- **Server name**: Name of the local server on which your MSSQL database is installed. If you are using MSSQL Server clustering, specify the name of the Virtual MSSQL Cluster Node that integrates the services running on physical nodes in the cluster. Make sure you provide the DNS host name and not the IP address of the server.

- **Database name**: Name of the archive database. The installation program creates a database with the name you type here.

- **Server instance name**: Name of the MSSQL Server instance to be used while creating the database. If you are using MSSQL Server clustering, provide the name of the Virtual SQL Service Instance.

- **Database listen port**: Port number of MSSQL Server.

- **Datafile path**: Path of the folder on the database server, where you want to create the data file. For example: `MSSQL_Home\MSSQL\Data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.

- **Datafile initial size**: Minimum size of the data file for the database.

- **Datafile maximum size**: Maximum size of the data file for the database.

- **Datafile increment size**: Additional file size limit that will be allocated to a database object after the initial size is full.

- **Logfile initial size**: Minimum size of the log file.

- **Logfile maximum size**: Maximum size of the log file.

- **Database administrator user name**: User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user for the virtual instance used for this database.

- **Database administrator password**: Password of the database administrator.

---

**Important**: If you selected Windows server authentication in the SQL Server Database Authentication window, the fields asking for database administrator details are not displayed.

- **Cisco Database user name**: User name required to connect to the archive database. The installation program creates this user.

- **Cisco Database password**: Password for the database user.
Click Next.

Provide archive database parameters

18. In the Reports Database parameters window, enter the following information.

- **Server name**: Name of the local or remote server on which the reports database should be installed. The reports database need not be created on the same database server as the master and partition databases.
- **Database name**: Name of the reports database. The installation program creates a database with the name you type here. If you are using MSSQL server clustering, specify the name of the virtual MSSQL cluster node that integrates the services running on physical nodes in the cluster. Make sure you provide the DNS host name and not the IP address of the server.
- **Server instance name**: Name of the MSSQL Server instance to be used while creating the database. If you are using MSSQL Server clustering, provide the name of the Virtual SQL Service Instance.
- **Database listener port**: Port number of the MSSQL Server.
- **Datafile path**: Path of the folder on the database server, where you want to create the data file. For example, `MSSQL_Home\MSSQL\Data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.
- **Datafile initial size (MB)**: Minimum size of the data file for the database.
- **Datafile maximum size (MB)**: Maximum size of the data file for the database.
- **Datafile increment size (MB)**: Additional file size limit that will be allocated to a database object after the initial size is full.
- **Logfile initial size (MB)**: Minimum size of the log file.
- **Logfile maximum size (MB)**: Maximum size of the log file.
- **Database administrator user name**: User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user corresponding to the virtual instance used for this database.
- **Database administrator password**: Password of the database administrator.

**Important**: This screen only appears if the application is being installed with the Enterprise edition of Microsoft SQL Server 2005.
Cisco Database User Name: User name required for connecting to the database. The installation program creates this user.

Cisco Database Password: Password for the database user.

Click Next.

Provide reports database parameters

19. In the Domain User Account Parameters window, enter the following information:

Domain User name: User name of the domain user account you created for use by Cisco Interaction Manager. For more information, refer to “Setting Up User Accounts and Permissions” on page 22. If you are using a localUsername, provide it as localMachinename\localUsername.

Domain User Password: Password for the domain user account.

Verify password: Verify the password.

Click Next.
20. Review the information displayed in the Summary window, and click **Install**.

21. In the Installation Complete window, click **Finish** to complete the installation process for Cisco Unified Web and E-Mail Interaction Manager.

   A summary of the installation is displayed when the installation process is complete. The installation summary is also saved in `Cisco_Home\eService\installation\installation_summary.txt`

   The installation program runs the Cisco Diagnostic Utility and saves the report in `Cisco_Home\eService\web\view\platform\debug\eGain_Configuration_date_timestamp.html`.

22. After completing the Unified WIM and Unified EIM installation process, you can either continue to run the Cisco Interaction Manager Integration Wizard or you can run it later.

   Do one of the following:

   - Copy the license files provided by Cisco to the following location: `Cisco_Home\eService\config\license`. Then, click the **Finish** button to launch the Cisco Interaction Manager Integration Wizard and follow steps 3 - 24 in “To run the integration wizard:” on page 72.

   - Copy the license file and choose to run the Cisco Interaction Manager Integration Wizard later. To run the wizard later, follow the steps in “Integrating Cisco Interaction Manager with Unified CCE” on page 72.

**Additional Steps for Collocated Configurations**

If the installation includes Unified WIM, it becomes a collocated deployment, where the web server is installed on a separate machine outside the firewall. For a collocated configuration, now install the web server.

**To install the web server:**

- Follow all the steps in the section “To install the web server:” on page 65.

**Installing a Split-Server or Collocated Configuration**

A true split-server deployment is possible only for Unified EIM installations. If the installation includes Unified WIM, it becomes a collocated deployment, where the web server is installed on a separate machine outside the firewall.

**Important:** Ensure that MSSQL Server, MS Search Service, and MSSQL Server Agent Service are running on the database server machine. Also ensure that Microsoft IIS is running on the web server machine.

**To install a split-server or collocated configuration:**

- Follow all the steps in the section “To install a single-server or collocated configuration:” on page 35. In Steps 15, 16, and 17 make sure to give the following values:

  - **Server name:** Give the name of the remote server on which you want to install the partition, master, and archive databases. Make sure you provide the DNS host name and not the IP address of the server.
A summary of the installation is displayed when the installation process is complete. The installation summary is also saved in Cisco_Home\eService\installation\installation_summary.txt.

The installation program runs the Cisco Diagnostic Utility and saves the report in Cisco_Home\eService\web\view\platform\debug\eGain_Configuration_date_timestamp.html.

Additional Steps for Collocated Configurations

If the installation includes Unified WIM, it becomes a collocated deployment, where the web server is installed on a separate machine outside the firewall. For a collocated configuration, now install the web server.

To install the web server:

- Follow all the steps in the section “To install the web server:” on page 65.

Installing a Distributed-Server Configuration

- In the procedure described here, each component is installed separately on a dedicated machine.

  When each component is on a different machine, make sure you install the file server first, followed by the database server. Since the database is installed remotely, you can select both the File server and the Database components in the Installation Options screen. The program asks you for the details of the database server as you work through the installation.

- If you are installing two components, for example, the application and messaging servers, on the same machine, make sure that you select both Application server and Messaging server components in the Installation Options screen. The installation program can only be run once per server.

  The valid sequence in this case is:
  a. File server + Database server
  b. Application server + Messaging server
  c. Other components in any order.

  Important: Refer to the work sheet for details that you are asked to provide during the installation.

Installing the File Server

Run the installation program from the file server desktop.

To install the file server:

1. Follow Steps 1–3 in “To install a single-server or collocated configuration:” on page 35.
2. In the Installation Options window, select the File Server option.
Click Next.

Select the File Server option

3. Type the path or browse to the folder where you would like to install the file server. Click Next.

Provide a location for the Cisco Interaction Manager home directory

4. In the Domain User Account Parameters window, provide the following information:
   - **Domain User name**: User name of the domain user account you created for use by Cisco Interaction Manager. In a distributed-server deployment, a domain user account is required. For more information, refer to “Setting Up User Accounts and Permissions” on page 22.
   - **Domain User Password**: Password for the domain user account.
   - **Verify password**: Verify the password.
Click Next.

![Screenshot of a domain user account parameters window](Image)

*Provide domain user name and password*

5. Review the information displayed in the Summary window, and click **Install**.
6. In the Install Complete window, click the **Finish** button to complete the installation process.

**Installing the Database Server**

---

**Important:** Ensure that MSSQL Server, MS Search Service, and MSSQL Server Agent Service are running. In a distributed installation, verify that all machines are in the same domain and LAN, and their clocks are synchronized.

This section describes the process of installing the master database, the active database and the archive database. In cases of installations that use the enterprise edition of MSSQL Server, a reports database is also created.

**To install the database:**

1. Follow Steps 1–3 in “To install a single-server or collocated configuration:” on page 35.
2. In the Installation Options window, select the **Database** option. Click **Next**.

![Image of Installation Options window]

*Select the Database option*

3. In the File server parameters window, provide the fully qualified domain name of the file server. Click **Next**.

![Image of File Server Parameters window]

*Provide name of file server*

The product has two distinct areas: the system area and the partition (or business) area. An administrator type user is created for each area during the installation. In the next two windows, you will be asked for user names and passwords for these two users:

- **System Administrator**
- **Partition Administrator**

4. In the Cisco System Administrator Account window, create the first system administrator user account. Provide the following:
  - **User name:** User name for the system administrator.
  - **Password:** Password for the system administrator.
- **Verify password**: Verify the password. Click Next.

5. In the Cisco Partition Administrator Account and Partition window, create the partition administrator user account and the partition. Provide the following:
   - **User name**: User name for the partition administrator.
   - **Password**: Password for the partition administrator.
   - **Verify password**: Verify the password.
   - **Partition name**: Name for the partition. This name will be part of the URL that users will use to log in to the product: http://Cisco_Home/Partition_Name. Make sure that the name does not contain any spaces.
   - **Description of partition**: Description for the partition. Click Next.
6. Select the default language for the Knowledge Base. Click **Next**.

7. In the Mandatory settings window, provide the following information:
   - **Default SMTP server**: The SMTP server defined here is used to send email notifications.
   - **Notification mail redirection from address**: All notification emails are sent from this email address.
   - **Notification mail redirection to address**: All notification emails are sent to this address.
8. In the SQL Server Database Authentication window, select between Windows and SQL server authentication. Your selection must be consistent with the authentication configuration in SQL Server. Click Next.

![SQL Server Database Authentication window](image)

Select the database server authentication mode

9. In the Master Database Parameters window provide the following details:

- **Server name**: Name of the local or remote server on which you want to install the database. If you are using SQL Server clustering, provide the name of the cluster. If you are using MSSQL Server clustering, specify the name of the Virtual MSSQL Cluster Node that integrates the services running on physical nodes in the cluster. Make sure you provide the DNS host name and not the IP address.
- **Database name**: Name of the master database. The installation program creates a database with the name you type here.
- **Server instance name**: Name of the MSSQL Server instance to be used while creating the database. If you are using MSSQL Server clustering, provide the name of the Virtual SQL Service Instance.
- **Database listener port**: Port number of the MSSQL Server.
- **Datafile path**: Path of the folder on the database server, where you want to create the data file. For example, `MSSQL_Home\MSSQL\Data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.
- **Datafile initial size (MB)**: Minimum size of the data file for the database.
- **Datafile maximum size (MB)**: Minimum size of the data file for the database.
- **Datafile increment size (MB)**: Additional file size limit that will be allocated to a database object after the initial size is full.
- **Logfile initial size (MB)**: Minimum size of the log file.
- **Logfile maximum size (MB)**: Maximum size of the log file.
- **Database administrator user name**: User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user corresponding to the virtual instance used for this database.
- **Database administrator password**: Password of the database administrator.
Cisco Database user name: User name required for connecting to the master database. The installation program creates the database and its user.

Cisco Database password: Password for the master database user.

Click Next.

Provide master database parameters

10. In the Partition Database Parameters window, provide the following details:

Server name: Name of the local or remote server on which the database is installed. The installation program uses the Server name you entered for the master database. If you are using MSSQL Server clustering, this is the name of the Virtual MSSQL Cluster Node that integrates the services running on physical nodes in the cluster.

Database name: Name of the partition database. The installation program creates a database with the name you type here.

Server instance name: Name of the MSSQL Server instance to be used while creating the database. The installation program uses the Server instance name you entered for the master database. If you are using MSSQL Server clustering, this is the name of the Virtual SQL Service Instance.

Database listener port: Port number of MSSQL Server.

Datafile path: Path of the folder on the database server, where you want to create the data file. For example, MSSQL_Home\MSSQL\Data. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.

Datafile initial size (MB): Minimum size of the data file for the database.

Datafile maximum size (MB): Maximum size of the data file for the database.

Datafile increment size (MB): Additional file size limit that will be allocated to a database object after the initial size is full.
- Database administrator user name: User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user corresponding to the virtual instance used for this database.
- Database administrator password: Password of the database administrator.

**Important:** If you select Windows server authentication in the SQL Server Database Authentication window, then the fields asking for database administrator details are not displayed.

- Cisco Database user name: User name required for connecting to the database. The installation program creates this user.
- Cisco Database password: Password for the database user.

Click Next.

11. In the Archive Database Parameters window, provide the following details:

**Important:** Archive database need not be created on the same database server as the master and partition databases.

- Server name: Name of the local or remote server on which the archive database should be installed.
- Database name: Name of the archive database. The installation program creates a database with the name you type here. If you are using MSSQL Server clustering, specify the name of the Virtual MSSQL Cluster Node that integrates the services running on physical nodes in the cluster. Make sure you provide the DNS host name and not the IP address of the server.
- Server instance name: Name of the MSSQL Server instance to be used while creating the database. If you are using MSSQL Server clustering, provide the name of the Virtual SQL Service Instance.
- Database listener port: Port number of the MSSQL Server.
- Datafile path: Path of the folder on the database server, where you want to create the data file. For example, `MSSQL_Home\MSSQL\data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.
- **Datafile initial size (MB):** Minimum size of the data file for the database.
- **Datafile maximum size (MB):** Maximum size of the data file for the database.
- **Datafile increment size (MB):** Additional file size limit that will be allocated to a database object after the initial size is full.
- **Logfile initial size (MB):** Minimum size of the log file.
- **Logfile maximum size (MB):** Maximum size of the log file.
- **Database administrator user name:** User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user corresponding to the virtual instance used for this database.
- **Database administrator password:** Password of the database administrator.

**Important:** If you select Windows server authentication in the SQL Server Database Authentication window, then the fields asking for database administrator details are not displayed.

- **Cisco Database user name:** User name required for connecting to the database. The installation program creates this user.
- **Cisco Database password:** Password for the database user.

Click Next.

Provide archive database parameters

12. In the Reports Database Parameters window, enter the following information.

**Important:** This screen only appears if the application is being installed with the Enterprise edition of Microsoft SQL Server 2005.

- **Server Name:** Name of the local or remote server on which the reports database should be installed. The reports database need not be created on the same database server as the master and partition databases.
- **Database Name:** Name of the reports database. The installation program creates a database with the name you type here. If you are using MSSQL server clustering, specify the name of the virtual MSSQL cluster node that integrates the services running on physical nodes in the cluster. Make sure you provide the DNS host name and not the IP address of the server.
- **Server instance name**: Name of the MSSQL Server instance to be used while creating the database. If you are using MSSQL Server clustering, provide the name of the Virtual SQL Service Instance.

- **Database listener port**: Port number of the MSSQL Server.

- **Datafile path**: Path of the folder on the database server, where you want to create the data file. For example, `MSSQL_Home\MSSQL\Data`. If you are using MSSQL Server clustering, provide the path to the drive shared among the clustered nodes.

- **Datafile initial size (MB)**: Minimum size of the data file for the database.

- **Datafile maximum size (MB)**: Maximum size of the data file for the database.

- **Datafile increment size (MB)**: Additional file size limit that will be allocated to a database object after the initial size is full.

- **Logfile initial size (MB)**: Minimum size of the log file.

- **Logfile maximum size (MB)**: Maximum size of the log file.

- **Database administrator user name**: User name of the database administrator for MSSQL Server. If you are using MSSQL Server clustering, provide the user corresponding to the virtual instance used for this database.

- **Database administrator password**: Password of the database administrator.

---

**Important**: If you select Windows server authentication in the SQL Server Database Authentication window, then the fields asking for database administrator details are not displayed.

- **Cisco Database User Name**: User name required for connecting to the database. The installation program creates this user.

- **Cisco Database Password**: Password for the database user.

Click *Next*.

Provide reports database parameters

13. In the Domain User Account Parameters window, enter the following information:

- **Domain User name**: User name of the domain user account you created for use by Cisco Interaction Manager. For more information, refer to “Setting Up User Accounts and Permissions” on page 22. If you are using a `local\username`, provide it as `local\computername\local\username`.

- **Domain User Password**: Password for the domain user account.
○ **Verify password:** Verify the password.

Click Next.

14. Review the information displayed in the Summary window, and click **Install**.

15. In the Install Complete window, click the **Finish** button to complete the installation process.

### Installing Application Servers

This section describes the process of creating the application server. Repeat these steps on each application server in your configuration. You should have created a new JBoss instance for each application server.

**To install the application server:**

1. Follow Steps 1–4 in “To install a single-server or collocated configuration:” on page 35.

2. In the Installation Options window, select the **Application Server** option. Click **Next**.

   ![Select the Application Server option](image-url)
3. Type the name of the file server. Make sure you provide the DNS host name and not the IP address of the server. Click **Next**.

![File Server Parameters](image1.png)

*Provide the name of the file server*

4. Type the path to or browse to the folder where you would like to install the application server. Click **Next**.

![CIM home directory](image2.png)

*Provide a location of the Cisco Interaction Manager home directory*

5. In the JBoss Parameters window, provide the following details:
   - **JBoss home directory**: Complete path to the directory where JBoss is installed. For example, C:\jboss-4.2.3.GA
   - **JBoss instance name**: Name of the JBoss instance you created on page 31.
   - **JBoss JNDI port**: Port number used by the JBoss Java Name Directory Interface (JNDI) based naming service. Default value is 2089
   - **JBoss HTTP port**: Port number used by JBoss. Default value is 9001.
- **JBoss HTTP SSL port**: Secure Sockets Layer port number used by JBoss. Default value is 9002.

6. Type the path to or browse to the JDK home directory. Click **Next**.

7. In the Domain User Account Parameters window, provide the following information:
   - **Domain User name**: User name of the domain user account you created for use by Cisco Interaction Manager. In a distributed-server deployment, a domain user account is required. For more information, refer to “Setting Up User Accounts and Permissions” on page 22.
   - **Domain User Password**: Password for the domain user account.
   - **Verify password**: Verify the password.
Click **Next**.

Provide domain user account parameters

8. Review the information displayed in the Summary window, and click **Install**.

9. In the Installation Complete window, click **Finish** to complete the installation process for Unified WIM and Unified EIM.

Complete this procedure on all application servers.

Installing the Messaging Server

This section describes the process of creating the messaging server.

**To install the messaging server:**

1. Follow Steps 1–4 in “To install a single-server or collocated configuration:” on page 35.

2. In the Installation Options window, select the **Messaging Server** option. Click **Next**.

Select the **Messaging Server** option
3. Type the name of the file server. Make sure you provide the DNS host name and not the IP address of the server. Click Next.

![File Server Parameters](image1)

*Provide the name of the file server*

4. Type the path to or browse to the folder where you would like to install the messaging server. Click Next.

![CIM home directory](image2)

*Provide a location for the Cisco Interaction Manager home directory*

5. In the JBoss parameters window, provide the following information:
   - **JBoss home directory**: Complete path to the directory where JBoss is installed. For example, `C:\jboss-4.2.3.GA`
   - **JBoss instance name**: Name of the JBoss instance you created on page 31.
   - **JBoss JNDI port**: Port number used by the JBoss Java Name Directory Interface (JNDI) based naming service. Default value is 2089.
   - **JBoss HTTP port**: Port number used by JBoss. Default value is 9001.
- **JBoss HTTP SSL port**: Secure Sockets Layer port number used by JBoss. Default value is 9002.

Provide JBoss parameters

6. Type the path or browse to the JDK home directory. Click **Next**.

Provide the path to the JDK home directory

7. In the Domain User Account Parameters window, provide the following information:
   - **Domain User name**: User name of the domain user account you created for use by Cisco Interaction Manager. In a distributed-server deployment, a domain user account is required. For more information, refer to “Setting Up User Accounts and Permissions” on page 22.
   - **Domain User Password**: Password for the domain user account.
   - **Verify password**: Verify the password.
Click Next.

Provide domain account information

8. Review the information displayed in the Summary window, and click **Install**.

9. In the Installation Complete window, click **Finish** to complete the installation process.

Installing Web Servers

This section describes the process of installing the web server. The web server does not need to be installed in the same domain as the other servers. It can also be installed outside the firewall for security reasons. Contact Cisco for more information about this configuration.

---

**Important:** Before installing the web server, ensure that IIS is running.

---

**To install the web server:**

1. Follow Steps 1–4 in “To install a single-server or collocated configuration:” on page 35.

2. In the Installation Options window, select the **Web Server** option. Click **Next**.
3. In the File Server Parameters window, provide the following details:
   - **File Server name:** Name of the file server. Make sure you provide the DNS host name and not the IP address of the server.

   Click Next.

5. In the Domain User Account Parameters window, provide the following information:
   - **Domain User name:** User name of the domain user account you created for use by Cisco Interaction Manager. In a distributed-server deployment, a domain user account is required. If the web server is in a different domain than the file server, provide the domain user account that was used while installing the file server. For more information, refer to “Setting Up User Accounts and Permissions” on page 22.
   - **Domain User Password:** Password for the domain user account.
- **Verify password**: Verify the password.

![Image of Domain User Account Parameters]

*Provide domain user account details*

6. Review the information displayed in the Summary window, and click **Install**.
7. In the Installation Complete window, click **Finish** to complete the installation process.

## Installing the Services Server

In this section, we describe the process of installing the services server.

**To install the services server:**

1. Follow Steps 1–4 in “To install a single-server or collocated configuration:” on page 35.
2. In the Installation Options window, select the **Services Server** option. Click **Next**.

![Image of Installation Options]

*Select the Services Server option*
3. Type the name of the file server. Enter the DNS name and not the IP address. Click **Next**.

![File Server Parameters](image)

*Provide the name of the file server*

4. Type the path to or browse to the folder where you would like to install the services server. Click **Next**.

![CIM home directory](image)

*Provide a location for the Cisco Interaction Manager home directory*
5. Type the path or browse to the JDK home directory. Click Next.

6. In the RMI and RMID Parameters window, provide the following details:
   - **RMI registry port**: Port number used by the Remote Method Invocation (RMI) registry naming service. Default value is 15099.
   - **RMI activation port**: Port number used by the RMI Daemon Process. Default value is 15098.
   Click Next.

7. In the Domain User Account Parameters window, provide the following information:
   - **Domain User name**: User name of the domain user account you created for use by Cisco Interaction Manager. In a distributed-server deployment, a domain user account is required. If the web server is in a different domain than the file server, provide the domain user account that was used while installing the file server. For more information, refer to “Setting Up User Accounts and Permissions” on page 22.
   - **Domain User Password**: Password for the domain user account.
8. Review the information displayed in the Summary window, and click **Install**.

9. In the Installation Complete window, click **Finish** to complete the installation process.

10. Repeat this procedure on each web server in your configuration.

11. After completing the Unified WIM and Unified EIM installation process, you can either continue to run the Cisco Interaction Manager Integration Wizard or you can run it later. Do one of the following:

   - Copy the license files provided by Cisco to the following location:
     \Cisco_Home\eService\config\license. Then, click the **Finish** button to launch the Cisco Interaction Manager Integration Wizard and follow steps 3 to 22 in “To run the integration wizard:” on page 72.
   - Copy the license files and then choose to run the Cisco Interaction Manager Integration Wizard later. To run the wizard later, follow the steps in “Integrating Cisco Interaction Manager with Unified CCE” on page 72.

A summary of the installation is displayed when the installation process is complete. The installation summary is also saved in \Cisco_Home\eService\installation\installation_summary.txt

The installation program runs the Cisco Diagnostic Utility and saves the report as an HTML file in the \Cisco_Home\eService\web\view\platform\debug folder.
Unified CCE Integration

- Integrating Cisco Interaction Manager with Unified CCE
Integrating Cisco Interaction Manager with Unified CCE

Cisco Interaction Manager is integrated with Unified CCE by running the Cisco Interaction Manager Integration Wizard on the services server of Cisco Interaction Manager. The wizard imports the media routing domains, agents, and skill groups information from the Unified CCE database to the Cisco Interaction Manager database.

Caution: If you have already run the integration wizard as part of the installation process, then do not run the wizard manually again.

Before running the Cisco Interaction Manager Integration Wizard, verify that:

- License files provided by Cisco have been copied to the following location: 
  `Cisco_Home\eService\config\license`.
- Unified CCE has been configured for the integration (for details, see Cisco Unified Web and E-Mail Interaction Manager Deployment and Maintenance Guide).
- The Cisco Interaction Manager services are running on the services server.

To run the integration wizard:

1. Browse to `Cisco_Home\eService\bin\IPCC`.
2. Locate the `uiconfigwizard.bat` file. Double-click it to launch the Cisco Interaction Manager Integration Wizard.
3. When the first window appears, read the introduction and click Next.
4. In the next window, read the details about the steps and click **Next**.

5. In the next window, type the path or browse to the folder where Cisco Interaction Manager is installed. Click **Next**.

6. In the next window, select the partition, and department in the partition, for which you want to download MRDs, agents, and skill groups. Click **Next**.
7. In the next window, provide the following details, and click Next.
   - **Unified CCE Administration Host Name**: Server name or IP address of the Unified CCE Administration Workstation (AW) server.
   - **SQL Server Database Name**: Name of the Unified CCE AW database.
   - **Port Number**: Port number of the Unified CCE AW database server. The default value is 1433.
   - **Database Administrator Login Name**: User name of the database administrator for the Unified CCE AW database server.
   - **Database Administrator Login Password**: Password of the database administrator for the Unified CCE AW database server.
   - **Verify Password**: Password that you had provided in the Database Administrator Login Password field.

8. In the next window, review the database details, and click the Apply button.

9. In the next window, to configure a secondary database connection, select Yes and provide the following details, and click Next. If not, select No and click Next.
   - **Unified CCE Administration Host Name**: Server name or IP address of the Unified CCE Secondary Administration Workstation (AW) server.
   - **SQL Server Database Name**: Name of the Unified CCE Secondary AW database.
- **Port Number**: Port number of the Unified CCE Secondary AW database server. The default value is 1433.
- **Database Administrator Login Name**: User name of the database administrator for the Unified CCE Secondary AW database server.
- **Database Administrator Login Password**: Password of the database administrator for the Unified CCE Secondary AW database server.
- **Verify Password**: Password that you had provided in the **Database Administrator Login Password** field.

Provide Unified CCE secondary database details

10. In the next window, review the database details, and click the **Apply** button.

Verify secondary database details
11. In the next window, select the application instance that you have configured in Unified CCE. Click Next.

*Required

Select the application instance

12. In the next window, select the Agent PGs that you have configured in Unified CCE for integration. Click Next.

Select Agent PGs

13. In the next window, verify that the correct Agent PGs have been selected. Click Next.

Verify that the correct Agent PGs have been selected
14. In the next window, select the media routing domains (MRDs) that you have configured in Unified CCE for the integration. Click **Next**.

![Select MRDs](image1.png)

15. In the next window, verify that the correct MRDs have been selected. Click **Next**.

![Verify that the correct MRDs have been selected](image2.png)

16. In the next window, select the Unified CCE script selector that you have configured in Unified CCE for the integration. Click **Next**.

![Select script selector](image3.png)
17. In the next window, verify that the correct script selector has been selected. Click **Next**.

![Image of script selector verification](image1.jpg)

*Verify that the correct script selector has been selected*

18. In the next window, select the peripherals that you have configured in Unified CCE for the integration. Click **Next**.

![Image of peripheral selection](image2.jpg)

*Select peripherals*

19. In the next window, verify that the correct peripherals have been selected. Click **Next**.

![Image of peripheral selection summary](image3.jpg)

*Verify that the correct peripherals have been selected*
20. In the next window, select agents for the Unified CCE peripherals. Click Next.

21. In the next window, verify that the correct agents have been selected. Click Next.

22. In the next window, select the skill groups for the peripherals. Click Next.
23. In the next window, verify that the correct skill groups have been selected. Click **Next**.

![Image of correct skill groups](image)

*Verify that the correct skill groups have been selected*

24. In the next window, click the **Finish** button to save the MRD, agent, and skill-group information in the Cisco Interaction Manager database.

![Image of Finish button](image)

*Click the Finish button*

25. In the last window, click the **Close** button to close the wizard.

26. If you ran the integration wizard manually, and not along with the Cisco Interaction Manager installation program, then stop and start Cisco Interaction Manager. For details, see **Stopping Cisco Interaction Manager** and **Starting Cisco Interaction Manager**.
Post-Installation Tasks

- Copying License Files
- Configuring Web Servers
- Starting SQL Server Agent Service
- Configuring Virus Scanning Exclusions
- Starting Cisco Interaction Manager
- Stopping Cisco Interaction Manager
- Logging in to the Business Partition
- Configuring Important Settings
- Configuring SMTP Server Relay Address List
- Uninstalling Cisco Interaction Manager
This chapter guides you through the tasks to be performed after installing the system. It also describes the process of uninstalling Unified WIM and Unified EIM.

You can set up Secure Sockets Layer (SSL) for more secure connections between browsers and the servers in your installation. This is an optional step. See Chapter 6, “SSL for Secure Connections” for details.

### Copying License Files

If you have not done so already, perform this task on the file server. In a distributed-server installation, this could be a separate machine.

**To copy the license file:**

1. Ensure that Cisco Interaction Manager is stopped.
2. Copy the license files provided by Cisco to the following location:
   \Cisco_Home\eService\config\license.

### Applying Updates

Perform this task on the machine where the file server is installed.

**To apply updates:**

1. Stop the Cisco Service on all the servers in the configuration.
2. Copy the Updates folder on the Application CD to a temporary local folder.
3. Apply the update by running the CIMInst_431.exe located in the Updates\4.3(1)_ES1 folder. Use the instructions in the accompanying Readme file.

### Configuring Web Servers

### Configuring Internet Information Services

This procedure helps eliminate 503 errors on the web server.

**To configure Internet Information Services (IIS) on the web server:**

1. Go to **Start menu > Administrative Tools > Internet Information Services (IIS) Manager.**
2. In the navigation tree, go to **Application Pools > DefaultAppPool.** Right-click the node and select **Properties.**
3. In the DefaultAppPool Properties window, on the Recycle tab, clear the following options:
   - Recycle worker process (in minutes)
   - Recycle worker process (number of requests)

4. On the Performance tab, clear the following options:
   - Shutdown worker process after being idle for
- Limit the kernel request queue

- Limit the kernel request queue

5. On the Health tab, clear the following options:
   - Enable pinging
   - Enable rapid fail protection

Click Apply. Then click OK to close the window.

Configuring Pool Thread Limit

This procedure increases the capacity of IIS to handle concurrent requests.

**To configure pool thread limit:**

1. On the web server, go to **Start** menu > **Run** and type:
   
   `Regedit`

   Press the Enter key.
2. In the Registry Editor window, navigate to HKEY_LOCAL_MACHINE > System > CurrentControlSet > Services > InetInfo > Parameters.

![Registry Editor](image)

*Navigate to InetInfo parameters*

3. Go to Edit menu > New > DWORD Value.

4. Change the name of the new registry value that gets created to `PoolThreadLimit`.

5. Right-click `PoolThreadLimit` and select Modify.

6. In the Edit DWORD Value window, set properties as following:

   * Value data: ffffffff
   * Base: Hexadecimal

   ![Edit DWORD Value](image)

   *Configure the registry value*

   **Important:** Make sure you have typed “f” eight times.

7. Restart the machine.

   Repeat these steps on all web servers in the configuration.

### Starting SQL Server Agent Service

SQL Server Agent service needs to be running before you start the application. This is used by the Reports module.
To start the SQL Server Agent service:

1. On the Start menu, point to All Programs, point to Microsoft SQL Server 2005, point to Configuration Tools, and then click SQL Server Configuration Manager.

2. In SQL Server Configuration Manager, expand Services, and then click SQL Agent.

3. In the results pane, right-click any instance, and then click Start.

   A green arrow on the icon next to the SQL Server Agent and on the toolbar indicates that SQL Server Agent started successfully.

4. Click OK.

Configuring Virus Scanning Exclusions

   To ensure that virus and malware scanning software on the servers do not interfere with the performance of the application, certain folders and files must be excluded from continuous virus scanning. Since no files are downloaded to these locations from the internet, it is safe to exclude these directories from virus scanning.

Single-Server Configuration

   Follow the instructions for your virus scanning software to exclude the following folders and file types:

<table>
<thead>
<tr>
<th>Item</th>
<th>Exclude Subfolders?</th>
<th>Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows File Protection</td>
<td>--</td>
<td>Read, Write</td>
</tr>
<tr>
<td>All files of type LOG</td>
<td>--</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Pagefile.sys</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Drive\Cisco_home*</td>
<td>Yes [other than Storage]</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.mdf</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.ldf</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.ndf</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.dat</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Drive\jdk**</td>
<td>Yes</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Drive\JBoss**</td>
<td>Yes</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.rll</td>
<td>No</td>
<td>Read, Write</td>
</tr>
</tbody>
</table>
Split and Distributed-Server Configurations

On the File, Messaging, Services, Application and Web Servers

- Follow the instructions for your virus scanning software to exclude the following folders and file types:

<table>
<thead>
<tr>
<th>Item</th>
<th>Exclude Subfolders?</th>
<th>Execute permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows File Protection</td>
<td>--</td>
<td>Read, Write</td>
</tr>
<tr>
<td>All files of type LOG</td>
<td>--</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Pagefile.sys</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Drive\Cisco_homeA</td>
<td>Yes [other than Storage]</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Drive\jdk*</td>
<td>Yes</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Drive\JBoss*</td>
<td>Yes</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.rll</td>
<td>No</td>
<td>Read, Write</td>
</tr>
</tbody>
</table>

On the Database Servers

- Follow the instructions for your virus scanning software to exclude the following folders and file types:

<table>
<thead>
<tr>
<th>Item</th>
<th>Exclude Subfolders?</th>
<th>Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows File Protection</td>
<td>--</td>
<td>Read, Write</td>
</tr>
<tr>
<td>All files of type LOG, if any</td>
<td>--</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Pagefile.sys</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>Drive\Path_to_datafile</td>
<td>Yes</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.mdf</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.ldf</td>
<td>No</td>
<td>Read, Write</td>
</tr>
<tr>
<td>*.ndf</td>
<td>No</td>
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</tr>
<tr>
<td>*.dat</td>
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<td>Read, Write</td>
</tr>
<tr>
<td>*.rll</td>
<td>No</td>
<td>Read, Write</td>
</tr>
</tbody>
</table>

Starting Cisco Interaction Manager

To start Cisco Interaction Manager:

- In single and split-server installations:
  - In the Windows Services panel, start the Cisco service to start all Cisco services.
In a distributed-server installation:

Ensure that all the machines in the configuration are available and connected to the network.

a. Start Cisco Service on the messaging server by starting the Cisco Windows service from the Windows Services panel.

b. On the services server, start the application by starting the Cisco Windows service from the Windows Services panel.

c. On each application server, start the application by starting the Cisco Windows service from the Windows Services panel.

### Stopping Cisco Interaction Manager

If you need to stop the application at any point during the post-installation tasks, follow the steps in this section.

**To stop Cisco Interaction Manager:**

- In single and split-server installations:
  - In the Windows Services panel, stop the Cisco service to stop all Cisco services.

- In a distributed-server installation:
  - On the services server machine, stop the Cisco Windows service from the Windows Services panel.
  - On each application server machine, stop the Cisco Windows service from the Windows Services panel.
  - On the messaging server machine, stop the Cisco Windows service from the Windows Services panel.
  - On the services server machine, open the Windows Task Manager and verify that none of the `javaw` and `java` processes (the services) are running.

### Logging in to the Business Partition

A system partition and a business partition are created during the installation. To begin using the application, you log in to the business partition.

### Logging In From Internet Explorer

**To log in to the business partition:**

1. Ensure that you have followed the instructions in the *Cisco Unified Web and E-Mail Interaction Manager Browser Settings Guide* document to configure your browser, and that the desktops meet the requirements outlined in *Cisco Unified Web and E-Mail Interaction Manager Solutions Reference Network Design Guide*.
2. Type the URL http://Web_server.company.com/Partition_name in your browser, where Web_server.company.com is the fully qualified domain name of your web server and Partition_name is the virtual directory created for this partition. During the installation, you are prompted to provide the partition name in the Partition Administrator Account and Partition window. This is used to create the virtual directory. If you have configured the web server to use SSL, then the URL is https://Web_Server.company.com/Partition_name.

Always use the fully qualified domain name of the web server when you type the URL to access Unified WIM and Unified EIM.

3. In the Login window, type the user name and password you had set up for the partition administrator in the Partition Administrator Login Parameters window during the installation. Click the Log In button.

Logging In From Cisco Agent Desktop Embedded Browser

This release of Unified WIM and Unified EIM can also be used with the embedded browser in Cisco Agent Desktop (CAD).

See CAD documentation for details about configuring a new task button in CAD to launch Unified WIM and Unified EIM using a URL. The URL is http://Web_Server.company.com/Partition.Virtual_Directory. If you have configured the web server to use SSL, then the URL is https://Web_Server.company.com/Partition.Virtual_Directory. Make sure you

Make sure that Unified WIM and Unified EIM is configured to run in its own browser tab, uninterrupted by other browser applications.

Configuring Important Settings

Settings allow you to configure various aspects of the application. Some settings are configured at the partition level, while others have to be set up for each department.

These settings are of two types:

1. **Mandatory settings**: These settings are configured during installation, and must be verified before using the application. Settings related to ESMTP protocol, must be configured manually if you are using ESMTP protocol for email notifications and emails from the self-service portal.

2. **Optional settings**: Although it is not mandatory to change these settings, you are likely to feel the need to configure them for your business.

Mandatory Settings

**At the partition level**

The following settings are updated during installation, but we recommend that you log in to the application as a partition administrator, and verify and update them from the Administration Console, if required. The application starts using this information as soon as the installation is complete.

- Default SMTP server
- Notifications mail SMTP Server
- Notifications mail redirection from address
- Notifications mail redirection to address

These settings are required only if you use ESMTP protocol for exception and spam emails and notifications.

- Exception mails SMTP user name
- Exception mails SMTP password
- SPAM mails SMTP user name
- SPAM mails SMTP password
- Notification mails SMTP user name
- Notification mails SMTP password

**At the department level**

This setting is automatically updated for the first department created by the installation program. For all subsequent departments, the administrator must configure it.

- Default From address for alarm

**Optional Settings**

Although it is not mandatory to change these settings, you are likely to feel the need to configure them for your business.

**At the partition level**

- Customer departmentalization
- Deletion time out
- Exception email SMTP
- Exception mail redirection to address
- Exception mail redirection from address
- Expiry time for auto pushback
- Inactive time out
- SPAM mail SMTP Server
- SPAM mail redirection from address
- SPAM mail redirection to address

**At the department level**

- Business calendar time zone

For a complete list of all available settings, refer to the *Cisco Unified Web and E-mail Interaction Manager Administrator’s Guide to Administration Console*. 
Configuring SMTP Server Relay Address List

- The default SMTP server configured during the installation process is used to send emails from the self-service portal. Notifications are also sent using this SMTP server.
- To allow the system to successfully send such emails, verify that the IP addresses of all the application servers in the configuration are added to the relay address list of the SMTP server.

Uninstalling Cisco Interaction Manager

**Important:** The uninstallation program can only be run once. It will uninstall the current version and return the system to the state prior to the time the Upgrader was last run.

To ensure that critical data is not lost, the program does not uninstall the following components:

- The database
- The following folders on the file system:
  - `Cisco_Home`\eService\Storage
  - `Cisco_Home`\eService\config\dictionary
  - `Cisco_Home`\eService\l10n\en\us\resource type

Before you begin the uninstallation process, make sure you stop Cisco Unified Web and E-mail Interaction Manager. For details refer to Stopping Cisco Interaction Manager.

**Important:** In a distributed environment, uninstall the services server first, then the messaging server, the application servers, and the web server. Run the Uninstaller on the file server only after you have run it on the other machines in the configuration. If there are other components on the same machine as the file server, those are uninstalled last as well.

**To uninstall Cisco Interaction Manager:**

1. Go to Start > Settings > Control Panel.
2. Double-click Add/Remove Programs.
3. From the list of currently installed programs, select Cisco Unified Web and E-Mail Interaction Manager and click Remove.
4. In the Uninstall Cisco Interaction Manager window, click the **Uninstall** button.

![Uninstall Cisco Interaction Manager](image)

*Click the *Uninstall* button*

5. When the uninstallation is complete, you are given a choice of restarting the server right away, or doing it later.

6. On the database server, go to the SQL Enterprise Manager and delete the database manually, if required.
SSL for Secure Connections

- Installing a Security Certificate
- Configuring SSL Access
- Configuring Properties to View Attachments and Reports
- Testing SSL Access
Secure Sockets Layer (SSL) is widely used to create a secure communication channel between web browsers and servers. Set up SSL for more secure connections to your Unified WIM and Unified EIM installation by following the procedures described in this chapter. If the configuration uses a load balancer, configure SSL on the load balancer.

## Installing a Security Certificate

This section explains the procedures that you must perform to acquire a certificate and install it on the web server. These include:

- Generating a Security Certificate Request
- Submitting the Certificate Request
- Installing the Certificate on the Web Server

### Generating a Security Certificate Request

This procedure creates a new certificate request, which is then sent to a Certificate Authority (CA) for processing. If successful, the CA will send back a file containing a validated certificate.

---

**Important:** You need to generate the security certificate request for the Default website.

---

**To generate a certificate request:**

1. Go to **Start > Settings > Control Panel > Administrative Tools > Internet Information Services.**
2. Browse to **Web Sites > Web_site_Name.**
3. Right-click **Web_site_Name** and click **Properties.**
5. In the Secure communications section, click the **Server Certificate** button to launch the Web Server Certificate Wizard.

![Server Certificate Wizard](image)

*Click the Server Certificate button*

6. In the Welcome to the Web Server Certificate Wizard window, click the **Next** button.

7. In the Server Certificate window, select the **Create a New Certificate** option. Click **Next**.

![Create a New Certificate Wizard](image)

*Select the Create a new certificate option*
8. In the Delayed or Immediate Request window, select the **Prepare the request now, but send it later** option. Click **Next**.

Select to prepare the certificate request now and send it later

9. In the Name and Security Settings window, provide the following details:
   - Type a descriptive name for the certificate. The wizard uses the name of the current website by default.
   - Type a bit length for the key.

Click **Next**.

Provide the name for the certificate and configure the security settings
10. In the Organization Information window, type the organization name (such as Cisco) and unit (such as Service department). Click Next. As this information will be placed in the certificate request, make sure it is accurate.

11. In the Your Site’s Common Name window, in the Common name field, type the DNS name of the web server. Click Next.

12. In the Geographical Information window, provide the location information, Click Next.
13. In the Certificate Request File Name window, type the file name for the certificate request. The default name and location is \certreq.txt. Click **Next**.

![Certificate Request File Name](image)

*Provide a file name for the certificate request*

14. In the Request File Summary window, review the summary and click **Next** to generate the certificate.

**Submitting the Certificate Request**

**To submit the certificate request:**

- Go to the website of the company that issues SSL certificates (such as VeriSign), and submit your certificate request. Make sure you provide the same information as you provided while generating the certificate request. To submit the request, you will need the certificate request file that you generated (page 94).

On completion of the process, the vendor will generate the certificate and send it to you.

---

**Important:** You need to submit the certificate request for the Default website.

---

**Installing the Certificate on the Web Server**

Once you receive the certificate from your vendor, install it on your web server.

---

**Important:** You need to install the certificate for the Default website.

---

**To install the certificate on the web server:**

1. Save a copy of the certificate you received from your vendor on the local machine.
2. Go to **Start > Settings > Control Panel > Administrative Tools > Internet Information Services.**
3. Browse to **Web Sites > Web Site_Name.**
4. Right-click **Web Site_Name** and click **Properties.**
5. In the website properties window, go to the Directory Security tab.
6. In the Secure communications section, click the **Server Certificate** button to launch the Web Server Certificate Wizard.

   ![Click the Server Certificate button](Image)

7. In the Welcome to the Web Server Certificate Wizard window, click **Next**.

8. In the Pending Certificate Request window, select the **Process the pending request and install the certificate** option. Click **Next**.

   ![Select to process the pending request and install the certificate](Image)
9. In the Process a Pending Request window, type the path and file name of the local copy of the certificate. Click Next.

![Image of SSL Certificate Wizard]

Provide the path and file name of the certificate

10. In the SSL Port window, specify the SSL port for the website. Click Next.

![Image of SSL Port]

Specify the SSL port

11. In the Certificate Summary window, review the certificate summary and click Next. Click Finish.

The certificate is now installed on the web server.

Repeat this process on all web servers.

## Configuring SSL Access

This procedure uses Internet Services Manager to configure the virtual directory to require SSL for access to the application URL.

**Important:** You need to configure the SSL access for the Default website.

**To configure SSL access:**

1. Go to Start > Settings > Control Panel > Administrative Tools > Internet Information Services.
2. Browse to **Web Sites > Web_Site_Name**.

3. Right-click **Web_Site_Name** and click **Properties**.

4. In the website properties window, go to the Directory Security tab.

5. In the Secure communications section, click the **Edit** button.

![Click the Edit button](Image)

6. In the Secure Communications window, select the **Require secure channel (SSL)** and **Require 128-Bit encryption** options. Click **OK** and then click **OK** again to close the Properties window.

![Configure the secure communications options](Image)

When you click **OK**, the Inheritance Overrides window opens.
7. In the Inheritance Overrides window, do not select any child nodes and click the OK button to close the window.

[Image]

Continue without selecting any child node

8. Restart the IIS Service. Make sure that both websites have started.

Clients browsing to this virtual directory must now use HTTPS.

Configuring Properties to View Attachments and Reports

To configure properties:

1. On the File Server, in Cisco_Home\eService\config\egpl_master.properties, do the following:
   a. Change the value of webtemp.webdir from http://Web_server_FQDN/temp to https://Web_server_FQDN/temp. Verify that the fully qualified domain name (FQDN) of the web server is provided.

2. In Cisco_Home\eService\config\egml_mailconfig.properties change the value of Attachment.WebTemp from http://Web_server_FQDN/temp to https://Web_server_FQDN/temp. Verify that the FQDN of the web server is provided.

Important: If the deployment uses a loadbalancer, ensure that the loadbalancer FQDN is used in place of the web server FQDN.
Testing SSL Access

To test SSL access to Unified WIM and Unified EIM:

1. Open your web browser.

2. Use HTTP in the URL for the application. For example, http://Web_server_FQDN/Partition_name
   You should see a message asking you to view the page over a secure channel.

3. Now use HTTPS in the URL for the application. For example, https://Web_server_FQDN/Partition_name.

4. In the security message that appears, click the View certificate button.

5. After verifying the certificate information, click OK, then click Yes to proceed to the URL.
   The Unified WIM and Unified EIM login window appears.
Appendix A: Check List

**Configuration Type**

- [ ] Single-server
- [ ] Split-server
- [ ] Distributed-server

**Software Requirements**

**On all Servers**

- [ ] Microsoft Windows 2003 SP2

**On the Database Server**

- [ ] Microsoft SQL Server 2005, SP 3

**On the Messaging Server**

- [ ] JBoss 4.2.3 GA
- [ ] JDK 1.5 Update 12

**On all Application Servers**

- [ ] JBoss 4.2.3 GA
- [ ] Microsoft® SQL Server® 2005 Driver for JDBC™ version 2.0
- [ ] JDK 1.5 Update 12

**On all Web Servers**

- [ ] Microsoft IIS 6.0

**On the Services Server**

- [ ] JDK 1.5 Update 12
## Pre-Installation Tasks

<table>
<thead>
<tr>
<th>#</th>
<th>Task</th>
<th>Completed?</th>
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<tbody>
<tr>
<td>1.</td>
<td>Verifying System Requirements [page 20]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Bandwidth and Hardware Requirements [page 20]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Software Requirements [page 20]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Removing Spaces From Directory Names [page 20]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Disabling Loopback Adapter Configuration [page 21]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Applying Hotfix for Windows 2003 SP2 [page 22]</td>
<td>❑</td>
</tr>
<tr>
<td>2.</td>
<td>Verifying Network Configuration [page 22]</td>
<td>❑</td>
</tr>
<tr>
<td>3.</td>
<td>Setting Up User Accounts and Permissions [page 22]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Setting Up Domain Account [page 22]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Configuring Permissions on Active Directory Server [page 23]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Configuring Database Servers [page 25]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Verifying Status of SQL Server FullText Search Service [page 25]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Running SQL Server Services [page 27]</td>
<td>❑</td>
</tr>
<tr>
<td></td>
<td>▸ Configuring Microsoft DTC Settings [page 27]</td>
<td>❑</td>
</tr>
<tr>
<td>5.</td>
<td>Installing Sun JDK [page 32]</td>
<td>❑</td>
</tr>
<tr>
<td>6.</td>
<td>Installing JBoss [page 30]</td>
<td>❑</td>
</tr>
<tr>
<td>7.</td>
<td>Creating a JBoss Instance [page 31]</td>
<td>❑</td>
</tr>
<tr>
<td>8.</td>
<td>Verifying Web Server Settings [page 32]</td>
<td>❑</td>
</tr>
<tr>
<td>9.</td>
<td>Configuring SMTP Port in Virus Scanners [page 32]</td>
<td>❑</td>
</tr>
<tr>
<td>10.</td>
<td>Completing Installation Work Sheet [page 32]</td>
<td>❑</td>
</tr>
<tr>
<td>11.</td>
<td>Verifying Unified CCE Configuration [page 32]</td>
<td>❑</td>
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# Installation Process

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<tbody>
<tr>
<td>1</td>
<td>Installing a Single-Server or Collocated Configuration [page 35]</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Installing a Split-Server or Collocated Configuration [page 47]</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Installing a Distributed-Server Configuration [page 48]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Installing the File Server [page 48]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Installing the Database Server [page 50]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Installing Application Servers [page 59]</td>
<td></td>
</tr>
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<td></td>
<td>Installing the Messaging Server [page 62]</td>
<td></td>
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<td></td>
<td>Installing Web Servers [page 65]</td>
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</tr>
<tr>
<td></td>
<td>Installing the Services Server [page 67]</td>
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# Post-Installation Tasks

<table>
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<tr>
<th>#</th>
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<tbody>
<tr>
<td>1</td>
<td>Copying License Files</td>
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</tr>
<tr>
<td>2</td>
<td>Applying Updates</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Configuring Web Servers [page 82]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configuring Internet Information Services [page 82]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configuring Pool Thread Limit [page 84]</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Starting SQL Server Agent Service [page 85]</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Configuring Virus Scanning Exclusions [page 86]</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Starting Cisco Interaction Manager [page 87]</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Logging in to the Business Partition [page 88]</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Configuring Important Settings [page 89]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mandatory Settings [page 89]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optional Settings [page 90]</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Configuring SMTP Server Relay Address List [page 91]</td>
<td></td>
</tr>
</tbody>
</table>
## File Server Details

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Location of Cisco Interaction Manager home directory</td>
<td></td>
<td>Directory where the application should be installed.</td>
</tr>
<tr>
<td>2</td>
<td>Domain user name</td>
<td></td>
<td>Required for distributed-server installations and all configurations using windows authentication for database connectivity.</td>
</tr>
<tr>
<td>3</td>
<td>Domain user password</td>
<td></td>
<td></td>
</tr>
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## Database Server Details

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>File Server name</td>
<td></td>
<td>Name of the file server. Make sure you provide the DNS host name.</td>
</tr>
<tr>
<td>2</td>
<td>System Administrator user name</td>
<td>sa</td>
<td>Administrator user for the system partition. The installation program creates this user.</td>
</tr>
<tr>
<td>3</td>
<td>System Administrator password</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Partition Administrator user name</td>
<td>pa</td>
<td>Administrator user for the business partition. The installation program creates this user.</td>
</tr>
<tr>
<td>5</td>
<td>Partition Administrator password</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Partition name</td>
<td></td>
<td>Name becomes a part of the URL used to access the business partition (E.g. If partition name is default, URL is <a href="http://webserver.company.com/default">http://webserver.company.com/default</a>)</td>
</tr>
<tr>
<td>#</td>
<td>Item</td>
<td>Value</td>
<td>Notes</td>
</tr>
<tr>
<td>----</td>
<td>------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>7.</td>
<td>Partition description</td>
<td></td>
<td>This is the default language used for content creation.</td>
</tr>
<tr>
<td>8.</td>
<td>Knowledge Base Primary Language</td>
<td></td>
<td>SMTP server to be used to send notifications.</td>
</tr>
<tr>
<td>9.</td>
<td>Default SMTP server</td>
<td></td>
<td>FROM address for notification emails.</td>
</tr>
<tr>
<td>10.</td>
<td>Notification mail redirection from address</td>
<td></td>
<td>TO address to which notification emails must be sent.</td>
</tr>
<tr>
<td>11.</td>
<td>Notification mail redirection to address</td>
<td></td>
<td>Authentication type to be used while connecting to the database. This must match the authentication selected in SQL Server 2005.</td>
</tr>
<tr>
<td>12.</td>
<td>Authentication type</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Master Database Parameters**

<p>| 13. | Server name                                    | Make sure you provide the DNS host name and not the IP address of the server. For SQL Server clusters, provide the name of the virtual MSSQL cluster node. |
| 14. | Database name                                  | Name of the master database. E.g eGMasterDB.                          |
| 15. | Server instance name                           | Use either the default server instance, or a named instance. For SQL Server clusters, provide the name of the virtual MSSQL service instance. |
| 16. | Database listener port                         | Port number of SQL Server.                                           |
| 17. | Datafile path                                  | Data file for this database is created in this location. For SQL Server clusters, provide the name of the drive shared among the clustered nodes. |
| 18. | Datafile initial size                          |                                                                      |
| 19. | Datafile maximum size                          |                                                                      |
| 20. | Datafile increment size                        |                                                                      |
| 21. | Logfile initial size                           |                                                                      |
| 22. | Logfile maximum size                           |                                                                      |
| 23. | Database administrator user name               | An sa level user name is required during installation to create schema and database objects. For SQL Server clusters, provide the user for the virtual instance. |
| 24. | Database administrator password                |                                                                      |</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Cisco Database user name</td>
<td></td>
<td>Installation program creates this user with administrator privileges for this database.</td>
</tr>
<tr>
<td>26</td>
<td>Cisco Database password</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Partition (Active) Database parameters**

| 27 | Server name                   |                                                                      | Must be the same one on which the master database is installed. For SQL Server clusters, provide the name of the virtual MSSQL cluster node. |
| 28 | Database name                 |                                                                      | Name of the active database.                                                                                                         |
| 29 | Server instance name          |                                                                      | Use either the default instance or a named instance. For SQL Server clusters, provide the name of the virtual MSSQL service instance.  |
| 30 | Database listener port        |                                                                      | Port number of SQL Server.                                                                                                          |
| 31 | Datafile path                 |                                                                      | Data file for this database is created in this location. For SQL Server clusters, provide the name of the drive shared among the clustered nodes. |
| 32 | Datafile initial size         |                                                                      |                                                                                                                                        |
| 33 | Datafile maximum size         |                                                                      |                                                                                                                                        |
| 34 | Datafile increment size       |                                                                      |                                                                                                                                        |
| 35 | Logfile initial size          |                                                                      |                                                                                                                                        |
| 36 | Logfile maximum size          |                                                                      |                                                                                                                                        |
| 37 | Database administrator user name |                                              | An sa level user name is required during installation to create schema and database objects. For SQL Server clusters, provide the user for the virtual instance. |
| 38 | Database administrator password |                                                                    |                                                                                                                                        |
| 39 | Cisco Database user name      |                                                                      | Installation program creates this user with administrator privileges for this database.                                                |
| 40 | Cisco Database password       |                                                                      |                                                                                                                                        |

**Archive Database parameters**

<p>| 41 | Server name                   |                                                                      | Can be a different server than the ones on which master and active databases are created. For SQL Server clusters, provide the name of the virtual MSSQL cluster node. Make sure you provide the DNS host name. |
|    |                               |                                                                      |                                                                                                                                        |</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.</td>
<td>Database name</td>
<td></td>
<td>Name of the archive database.</td>
</tr>
<tr>
<td>43.</td>
<td>Database server instance</td>
<td></td>
<td>Use either the default instance or a named instance. For SQL Server clusters, provide the name of the virtual MSSQL service instance.</td>
</tr>
<tr>
<td>44.</td>
<td>Database listener port</td>
<td></td>
<td>Port number of SQL Server.</td>
</tr>
<tr>
<td>45.</td>
<td>Datafile path</td>
<td></td>
<td>Data file for this database is created in this location. For SQL Server clusters, provide the name of the drive shared among the clustered nodes.</td>
</tr>
<tr>
<td>46.</td>
<td>Datafile initial size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47.</td>
<td>Datafile maximum size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48.</td>
<td>Datafile increment size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.</td>
<td>Logfile initial size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>Logfile maximum size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51.</td>
<td>Database administrator user name</td>
<td></td>
<td>An sa level user name is required only during installation to create schema and database objects. For SQL Server clusters, provide the user for the virtual instance.</td>
</tr>
<tr>
<td>52.</td>
<td>Database administrator password</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>Cisco Database user name</td>
<td></td>
<td>Installation program creates this user with administrator privileges for this database.</td>
</tr>
<tr>
<td>54.</td>
<td>Cisco Database password</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reports Database parameters [Only for enterprise editions of MSSQL Server]**

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.</td>
<td>Server name</td>
<td></td>
<td>Can be a different server than the ones on which master and active databases are created. For SQL Server clusters, provide the name of the virtual MSSQL cluster node. Make sure you provide the DNS host name.</td>
</tr>
<tr>
<td>56.</td>
<td>Database name</td>
<td></td>
<td>Name of the reports database.</td>
</tr>
<tr>
<td>57.</td>
<td>Database server instance</td>
<td></td>
<td>Use either the default instance or a named instance. For SQL Server clusters, provide the name of the virtual MSSQL service instance.</td>
</tr>
<tr>
<td>58.</td>
<td>Database listener port</td>
<td></td>
<td>Port number of SQL Server.</td>
</tr>
<tr>
<td>59.</td>
<td>Datafile path</td>
<td></td>
<td>Data file for this database is created in this location. For SQL Server clusters, provide the name of the drive shared among the clustered nodes.</td>
</tr>
</tbody>
</table>
### Application Server Details

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>File Server name</td>
<td></td>
<td>Name of the file server. Make sure you provide the DNS host name.</td>
</tr>
<tr>
<td>2.</td>
<td>Location of Cisco Interaction Manager home</td>
<td></td>
<td>Directory where the application should be installed.</td>
</tr>
<tr>
<td></td>
<td>directory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>JBoss home directory</td>
<td></td>
<td>Make sure there are no spaces in the complete path to the directory.</td>
</tr>
<tr>
<td>4.</td>
<td>JBoss instance name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>JBoss JNDI port</td>
<td></td>
<td>Use default value</td>
</tr>
<tr>
<td>6.</td>
<td>JBoss HTTP port</td>
<td></td>
<td>Use default value</td>
</tr>
<tr>
<td>7.</td>
<td>JBoss HTTP SSL port</td>
<td></td>
<td>Use default value</td>
</tr>
<tr>
<td>8.</td>
<td>Location of JDK home directory</td>
<td></td>
<td>Make sure there are no spaces in the complete path to the directory.</td>
</tr>
<tr>
<td>9.</td>
<td>Domain user name</td>
<td></td>
<td>Required for distributed-server installations and all configurations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>using windows authentication for database connectivity.</td>
</tr>
<tr>
<td>10.</td>
<td>Domain user password</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Web Server Details

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Value</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>File server name</td>
<td></td>
<td>Make sure you provide the DNS host name.</td>
</tr>
<tr>
<td>2.</td>
<td>Application server name</td>
<td></td>
<td>Make sure you provide the DNS host name.</td>
</tr>
<tr>
<td>3.</td>
<td>Domain user name</td>
<td></td>
<td>Required for distributed-server installations and all configurations using windows authentication for database connectivity.</td>
</tr>
<tr>
<td>4.</td>
<td>Domain user password</td>
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<td></td>
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# Messaging Server Details

<table>
<thead>
<tr>
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<th>Item</th>
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<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>File Server name</td>
<td>Name of the file server. Make sure you provide the DNS host name.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Location of Cisco Interaction Manager home directory</td>
<td>Directory where the application should be installed.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>JBoss home directory</td>
<td>Make sure there are no spaces in the complete path to the directory.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>JBoss instance name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>JBoss JNDI port</td>
<td>Use default value</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>JBoss HTTP port</td>
<td>Use default value</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>JBoss HTTP SSL port</td>
<td>Use default value</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Location of JDK home directory</td>
<td>Make sure there are no spaces in the complete path to the directory.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Domain user name</td>
<td>Required for distributed-server installations and all configurations using windows authentication for database connectivity.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Domain user password</td>
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### Services Server Details

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>File Server name</td>
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<td>Name of the file server. Make sure you provide the DNS host name.</td>
</tr>
<tr>
<td>2</td>
<td>Location of Cisco Interaction Manager home directory</td>
<td></td>
<td>Directory where the application should be installed.</td>
</tr>
<tr>
<td>3</td>
<td>Location of JDK home directory</td>
<td></td>
<td>Make sure there are no spaces in the complete path to the directory.</td>
</tr>
<tr>
<td>4</td>
<td>RMI registry port</td>
<td>15099</td>
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<tr>
<td>5</td>
<td>RMI activation port</td>
<td>15098</td>
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<tr>
<td>6</td>
<td>Domain user name</td>
<td></td>
<td>Required for distributed-server installations and all configurations using windows authentication for database connectivity.</td>
</tr>
<tr>
<td>7</td>
<td>Domain user password</td>
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### Unified CCE Data Integration Wizard Details

<table>
<thead>
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<tbody>
<tr>
<td>1</td>
<td>Location of Cisco install directory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cisco partition name</td>
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<tr>
<td>3</td>
<td>Cisco department name</td>
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**Unified CCE database connection properties**

<table>
<thead>
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<tbody>
<tr>
<td>4</td>
<td>Unified CCE Administration Host Name for Primary AW database</td>
<td></td>
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<tr>
<td>5</td>
<td>SQL Server 2005 Database Name</td>
<td></td>
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<tr>
<td>6</td>
<td>Port Number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Database Administrator Login Name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Database Administrator Login Password</td>
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<td></td>
</tr>
<tr>
<td>9</td>
<td>Unified CCE Administration Host Name for secondary AW database</td>
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<td>10</td>
<td>SQL Server 2005 Database Name</td>
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<tr>
<td>11</td>
<td>Port Number</td>
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<td></td>
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<tr>
<td>#</td>
<td>Item</td>
<td>Value</td>
<td>Notes</td>
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<tr>
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<td>-------------------------------------------</td>
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</tr>
<tr>
<td>12</td>
<td>Database Administrator Login Name</td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>Database Administrator Login Password</td>
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</table>

**Unified CCE objects**

<table>
<thead>
<tr>
<th>#</th>
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</thead>
<tbody>
<tr>
<td>14</td>
<td>Unified CCE Application Instance name</td>
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</tr>
<tr>
<td>15</td>
<td>Unified CCE Media Routing Domain name</td>
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<tr>
<td>16</td>
<td>Unified CCE Script Selector</td>
<td></td>
<td></td>
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<tr>
<td>17</td>
<td>Unified CCE Peripheral name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Agent name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Skill Group name</td>
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</tbody>
</table>