



## **Cisco Unified Workforce Optimization**

Workforce Management 8.0 Installation Guide

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*Workforce Management Installation Guide 8.0*  
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## Revision History

Revision Date	Description
05-June-2007	First Customer Ship (FCS)

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## Revision History

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## Overview

# 1

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### Introduction

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The Workforce Management (WFM) InstallShield Wizard guides you through the processing of installing the Workforce Management application.

After you have successfully installed the WFM application into a properly-configured Cisco Unified Workforce Optimization environment, the basic functionality of WFM is ready to configure for your use. See the following documents for information on configuring WFM:

- *Workforce Management Administrator User Guide for Cisco Unified Workforce Optimization*
- *Workforce Management Supervisor User Guide for Cisco Unified Workforce Optimization*

## WFM Features

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WFM is an industry-leading software solution for multi-site staff forecasting and scheduling.

Call center managers can use WFM to:

- Develop a schedule forecast (by day or period)
- Manage special events
- Prepare schedules (summary and individual)
- Manage day-to-day schedule-related activities (Intraday)
- Approve time-off requests and shift changes
- Generate productivity, performance and historical reports.
- Create agent report cards
- Develop schedules for multiple sites
- Manage scheduling for offices in different time zones.
- Manage key performance indicators
- Manage real-time adherence.
- Monitor and adjust the current schedule for a team from a dashboard.

Agents can also use WFM to access the system to see their own schedules and performance indicators.



## WFM 8.0 installation architecture

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The WFM installation is divided into two parts:

- Process components
- Transaction components

**NOTE:** For Cisco Unified CCX, both components must be installed (and can only be) installed on the same server.

Users access WFM through a web browser.

## About this Guide

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### Conventions Used

This document uses the following conventions:

<b>Convention</b>	<b>Use</b>
<b>Bold</b>	Highlights keys, buttons, and menu items you can select in the interface.
Code	Highlights file paths and code.
<i>Italic</i>	Highlights book titles, variables, and terms that are defined.
>	The right angle bracket indicates a menu choice. For example, “choose <b>File &gt; Open</b> ” means “click the <b>File</b> menu, and then click <b>Open.</b> ”

## Related documentation

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The following documents contain additional information about WFM:

- *Workforce Management Installation Guide for Cisco Unified Workforce Optimization*
- *Workforce Management Administrator User Guide for Cisco Unified Workforce Optimization*
- *Workforce Management Supervisor User Guide for Cisco Unified Workforce Optimization*
- *Workforce Management Agent User Guide for Cisco Unified Workforce Optimization*
- *Workforce Management Release Notes for Cisco Unified Workforce Optimization*



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# System Requirements

# 2

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## Overview

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This section describes the basic requirements for WFM.

## System requirements

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The following are the minimum system requirements for the WFM.

### System environment

WFM 8.0 has been verified in the following configurations:

Table 1. Verified configurations

	<b>ACD</b>	<b>PBX</b>
<b>Configuration 1</b>	Unified CCX 5.0	Unified Communications Manager 5.1, 6.0
<b>Configuration 2</b>	Unified CCX 4.1	Unified Communications Manager 4.3

### Operating environment

WFM runs on the following minimum operating systems and hardware.

Table 2. Desktop minimum operating systems and hardware

<b>Operating System</b>	<b>Hardware</b>
Windows 2000 Professional Service Pack 4	<ul style="list-style-type: none"> <li>• 500 MHz Intel Pentium or higher</li> <li>• 128 MB RAM or higher</li> <li>• 1024 × 768 screen resolution or higher</li> <li>• 100 Mbit NIC or higher</li> </ul>
<ul style="list-style-type: none"> <li>• Windows XP Professional Service Pack 2</li> </ul>	<ul style="list-style-type: none"> <li>• 500 MHz Intel Pentium or higher</li> <li>• 128 MB RAM or higher</li> <li>• 1024 × 768 screen resolution or higher</li> <li>• 100 Mbit NIC or higher</li> </ul>

Table 3. Server minimum operating systems and hardware

Operating System	Hardware
Windows 2003 Server	<ul style="list-style-type: none"><li data-bbox="1024 373 1414 436">• Cisco Media Convergence Server (MCS) platform*</li></ul> <p data-bbox="1013 457 1414 751"><b>NOTE:</b> WFM should be installed on a dedicated Cisco MCS server or exact MCS equivalent. Running the WFM application on a platform other than the Cisco MCS server is not supported by Cisco. Running other applications on the same server can adversely affect performance.</p>

\* You may also install WFM on an MCS equivalent platform. For the latest information on supported MCS equivalent platforms (including IBM and HP), go to [http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod\\_brochure\\_list.html](http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_brochure_list.html).

### Third party software requirements

WFM requires the following software applications to run successfully:

Table 4. Desktop minimum third party software requirements

Application	Where Installed/Description
Internet Explorer 6.0 or 7.0	WFM client desktops Internet Explorer is required to access WFM web application.

Table 5. Server minimum third party software requirements

Application	Where Installed/Description
Microsoft SQL Server 2005	Cisco MCS platform System configuration data shall be maintained using a relational database. The customer must purchase and install Microsoft SQL Server 2005. The MSSQL Server 2005 is not installed as part of the product and must be installed prior to deploying WFM.
Internet Explorer 6.0 or 7.0	Cisco MCS platform Internet Explorer is required to access WFM web application.
Java 2 Runtime Environment (JRE) Standard Edition Version 5.0 (v1.5.0_11)	Cisco MCS platform JRE is required to run the Java applets and Java Server Pages (JSP) used by the WFM application. The Java 2 Runtime Environment shipped with WFM meets the minimum requirements and is automatically installed on the Cisco MCS platform. JRE must be installed manually on any desktop that accesses the WFM web application.



Table 5. Server minimum third party software requirements

<b>Application</b>	<b>Where Installed/Description</b>
BIRT v2.1	Cisco MCS platform The BIRT shipped with WFM meets the minimum requirements and is automatically installed.
Omnis v7.1	Cisco MCS platform The Omnis shipped with WFM meets the minimum requirements and is automatically installed.
Apache Tomcat v5.9	Cisco MCS platform The Apache Tomcat shipped with WFM meets the minimum requirements and is automatically installed.

## System capacity

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WFM 8.0 supports the following system capacities.

**NOTE:** Capacity numbers are goals. Actual numbers may vary.

<b>Attribute</b>	<b>Capacity</b>
Maximum number of WFM users	300
Maximum number of agents per team	150
Maximum number of skills per agent (for real time reporting)	50
Maximum number of supervisors per site	50
Maximum number of supervisors per team	30
Average number of agents per supervisor	7.5:1

## Configuration data

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The following data needs to be stored persistently and must be backed up and restored on a regular basis:

- WFM database
- Customer specific configuration files

Backups are independent of the IPCC Express backups and BARS tools. You can use standard MS SQL Server 2005 tools to manually backup and restore the WFM database.

## Services

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### Capture service

The Capture service is a background process that reads the data collected by the ODBC services from the Cisco Unified CCX database and compiles the telephony historical data into 30 minutes interval buckets. For high availability configurations, multiple data sources can be configured. However, the Capture will always connect to the first node and only failover to the second node if the first connection fails. The capture service will retrieve data every 30 minutes.

### Compile service

The Compile service is a background process that takes the data from the Capture service and aggregates the historical data in various ways. For example, it can compile historical data for agents, services or teams by per day, week, month, or year.

### OOB service

The OOB service retrieves historical data from the Cisco Unified Contact Center Express (Unified CCX) database.

### Request service

The Request service is a background service that listens for user requests to generate forecasts and schedules.

### Real Time Engine service

The Real Time Engine (RTE) is a background process that uses the ACMI protocol to get real-time information on agent states. This information is displayed in the Supervisor Adherence dashboard.

### Sync service

The Sync service connects to the CRS Node using the ACMI based synchronization process. It retrieves and processes configuration data, such as Contact Service Queue configuration, team configurations and agent configurations.

### Tomcat service

The Apache Tomcat service is a background process on the server that allows desktop clients to access the Workforce Management web application.

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# Setting up Microsoft SQL Server 2005

# 3

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## Overview

This section describes how to create a SQL login user and configure port exceptions in the Windows firewall.

You will need the username and password created here to complete the WFM Database window in WFM Configuration Setup, which runs automatically after you install the WFM services.

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## Prerequisites

Before you install the WFM services:

- Install Microsoft SQL Server 2005 on the server where the WFM Database service will be installed.
- Create a SQL login user.
- Configure the port exceptions in the Windows firewall (if the firewall is turned on) for the Microsoft SQL Server.

## Install Microsoft SQL Server 2005

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Install Microsoft SQL Server 2005 as per the SQL Server documentation.

**NOTE:** The SQL Server for WFM must be a default instance. It cannot be a named instance.

Once the Microsoft SQL Server 2005 is installed, create a Login User and assign a username and password.

**NOTE:** You will need the username and password created here to complete the WFM Database window in WFM Configuration Setup, which runs automatically after you install the WFM services.

**NOTE:** SQL Server must be set up with case-insensitivity (SQL collation name SQL\_Latin1\_General\_Cp1\_CI\_AS: see [http://msdn2.microsoft.com/en-us/library/aa258233\(SQL.80\).aspx](http://msdn2.microsoft.com/en-us/library/aa258233(SQL.80).aspx) for more information.

### Creating a SQL Login User

*To create a SQL Login User:*

1. On the SQL Server computer, start SQL Server Management Studio.
2. From the navigation tree in the left pane, select **Security > Logins** under the SQL instance.
3. Right-click **Logins** and select **New Login** from the popup menu to display the New Login dialog box.
4. On the **General** page, enter a name for the new login, select **SQL Server Authentication**, enter a password, and clear the Enforce password policy check box.
5. On the **Server Roles** page, select **dbcreator** from the list of server roles.

**NOTE:** The user must have permission to create databases.

6. Click **OK**.

The new login user is added to the list in the right pane.

### Configuring SQL Server Firewall Port Exceptions

Before QM is installed, you must manually add two ports to the firewall exception list on the QM Database services server. This procedure is necessary only if the Microsoft firewall is turned on. These ports are:

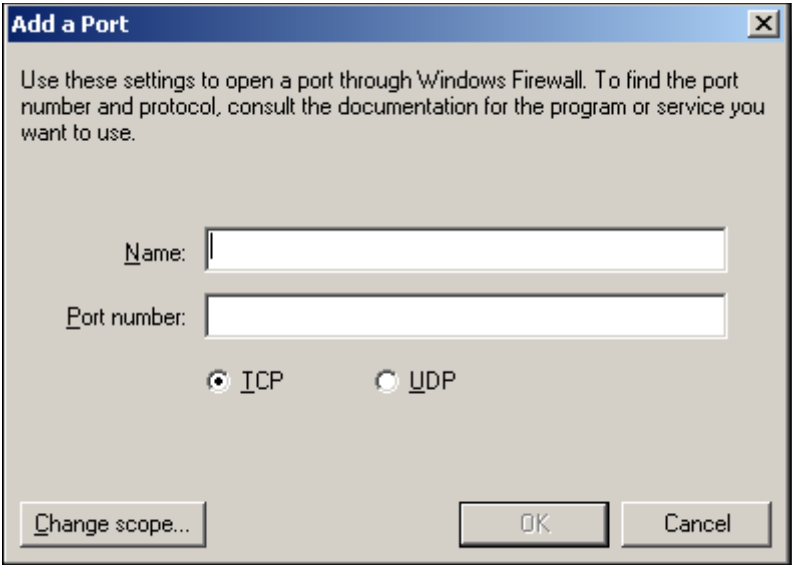
Port	Type	Description
1433	TCP	MSSQL server port
1434	UDP	MSSQL server port

The default instance of the SQL Server Database Engine listens on TCP port 1433.

**To add the ports to the firewall exceptions list:**

1. On the SQL Server computer, start the Windows Firewall utility and select the **Exceptions** tab.
2. Click **Add Port** to display the Add a Port dialog box.

Figure 1. Add a Port dialog box.



3. For the MSSQL server port named instance, enter a name describing the port, the port number **1433**, select **TCP** as the connection type, and then click **OK**.
4. Click **Add Port** again, and for the MSSQL server port, enter a name describing the port, the port number **1434**, select **UDP** as the connection type, and then click **OK**.





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# Installing WFM

# 4

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## Overview

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This section describes how to install WFM. WFM is installed in the following order:

- Install WFM services
- Run WFM Configuration Setup
- Set up NT Authentication for the Cisco Unified CC Database

## Prerequisites

---

Before you install the WFM application you must ensure that:

- The Cisco Media Convergence Server (MCS) platform is a dedicated standalone server.
- Windows 2003 Server is installed and running.
- Microsoft SQL Server 2005 is installed and running.
- You have a username and password for logging into the Microsoft SQL Server 2005. See ["Creating a SQL Login User" on page 22](#) for instructions.

**NOTE:** You must have permission to create databases.

- You know the IP addresses for the local machine and the Quality Management Base Server. The Configuration Setup tool will ask you for this information.
- If you intend to use Active Directory to manage user accounts, you need the following information:
  - The domain names and ports for the Active directory
  - The Active Directory paths to the users
  - The common names (CN) from the Active Directory account and the password
- You have the following information for Cisco Unified CCX:
  - The IP addresses for Side A and optionally Side B
  - The name of the Unified CCX Instance
  - The version of the Unified CCX
  - The username and password for the SQL database if you are using SQL authentication for Cisco Unified CCX 4.1.
- The IP address and port number for the Unified Contact Center server.

If the environment in which you are installing WFM includes any of the following servers, they must be installed and running before WFM can administer these servers:

- Cisco Unified CM
- Cisco Unified CC
- Cisco ICM
- Reports server
- Cisco Unity server

## **Removing Previous Versions of WFM**

---

If you previously installed WFM application and WFM is still installed, you must remove the WFM application from the server before you can reinstall the WFM application. Use the Add or Remove Programs feature on the Control Panel in the Windows 2003 Server to uninstall the previous WFM. More information on removing WFM is provided in ["Removing WFM" on page 47](#).

**NOTE:** When you remove the application the database remains.

## Installing WFM services

The WFM services installation is run from the product CD.

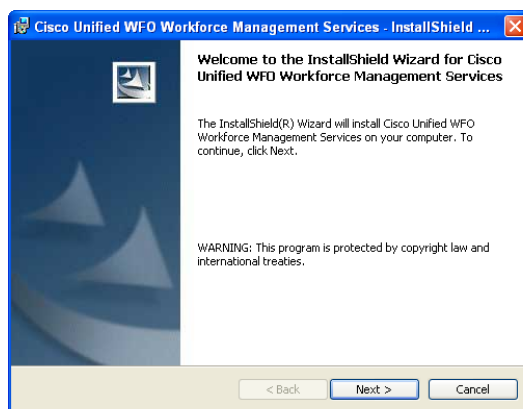
### *To install WFM services:*

Perform these steps on the Cisco Unified WFO Workforce Management Server.

1. Load the installation CD in the server computer, and then navigate to the CD in My Computer or Windows Explorer.
2. Double-click the file **setup.exe** to start the installation wizard.

The Cisco Unified WFO WFM Services - InstallShield Wizard appears (Figure 2).

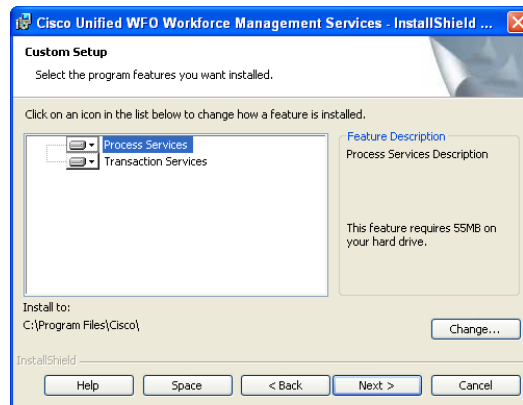
Figure 2. WFM InstallShield Wizard



3. Click **Next** to continue.

The Custom Setup dialog appears (Figure 3).

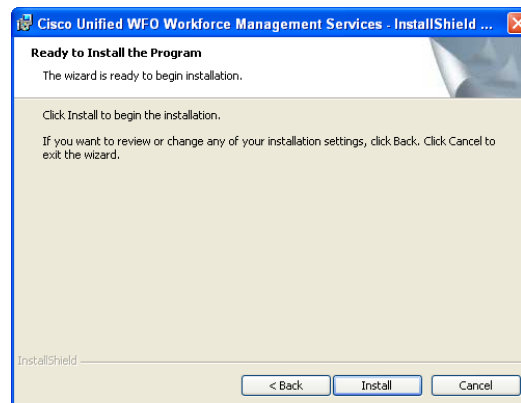
Figure 3. Custom Setup dialog



4. Click **Next** to continue.

The Ready to Install the Program dialog appears (Figure 4).

Figure 4. Ready to Install the Program dialog

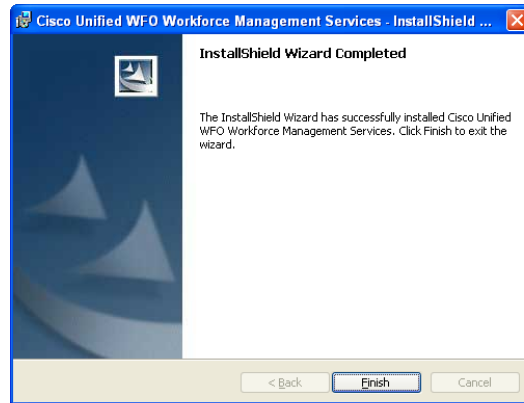


5. Click **Install** to continue.

The installation wizard installs WFM, Birt, Omnis, Java 2 Runtime Environment (JRE), and the Apache Tomcat Webserver.

The InstallShield Wizard Completed appears when the InstallShield Wizard completes the installation (Figure 5).

Figure 5. InstallShield Wizard Completed dialog



6. Click **Finish** to complete the installation.

The WorkForce Management - Configuration Setup window appears (Figure 6).

Complete the Configuration Setup. See ["Setting up the WFM configuration" on page 32](#) for instructions.

A reboot dialog might appear (Figure 7).

**NOTE:** You might be prompted to reboot the machine if the Windows Installer Engine has determined that your system requires a reboot to complete the install. Complete the Configuration Setup **before** you reboot the system. See ["Step 1. Running WFM Configuration Setup" on page 32](#) for more information on the Configuration Setup tool.

Figure 6. General Configuration window

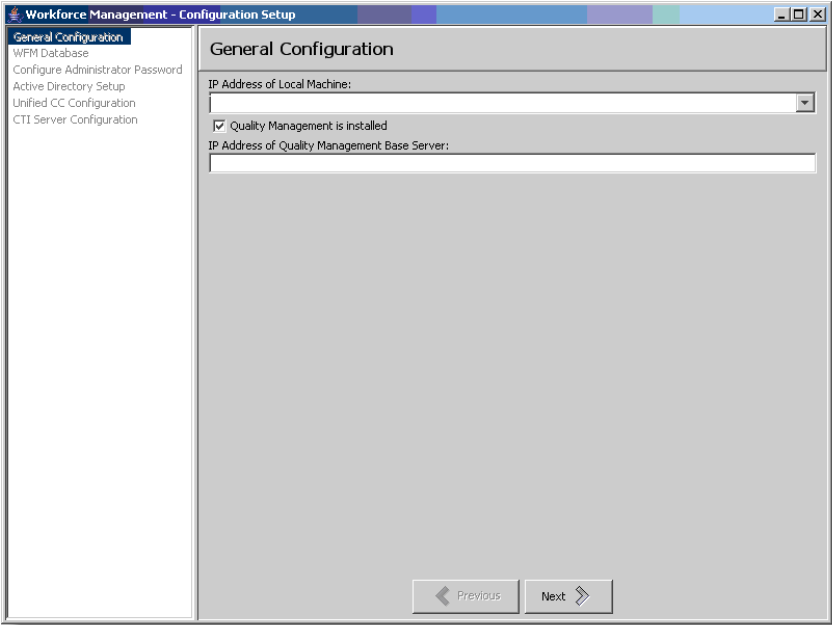
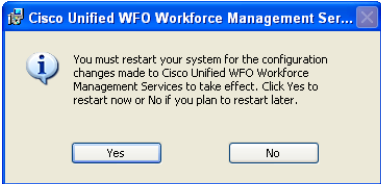


Figure 7. Reboot dialog



## Setting up the WFM configuration

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Use the WFM Configuration Setup tool to enter the service setup information needed for a successful WFM installation.

The WFM Configuration Setup automatically launches when you install the WFM application. You can manually launch WFM Configuration Setup by double-clicking `postinstall.exe` located in the `C:\Program Files\Cisco\WFO_WFM\bin` folder on the single serve machine where the WFM application was installed.

**NOTE:** The WFM Configuration Setup only runs on the single server machine on which the WFM application was installed.

### Step 1. Running WFM Configuration Setup

**NOTE:** WFM Configuration Setup automatically appears after you install the WFM application. If the WFM Configuration Setup is running, go to ["Step 2. Entering IP addresses" on page 32](#).

*To run WFM Configuration Setup:*

1. On the machine hosting the WFM application, open Windows Explorer and navigate to the following directory:  
`C:\Program Files\Cisco\WFO_WFM\bin`
2. To start WFM Configuration Setup, double-click **postinstall.exe**.  
The `postinstall.exe` starts and displays the General Configuration window. Go to ["Step 2. Entering IP addresses" on page 32](#).

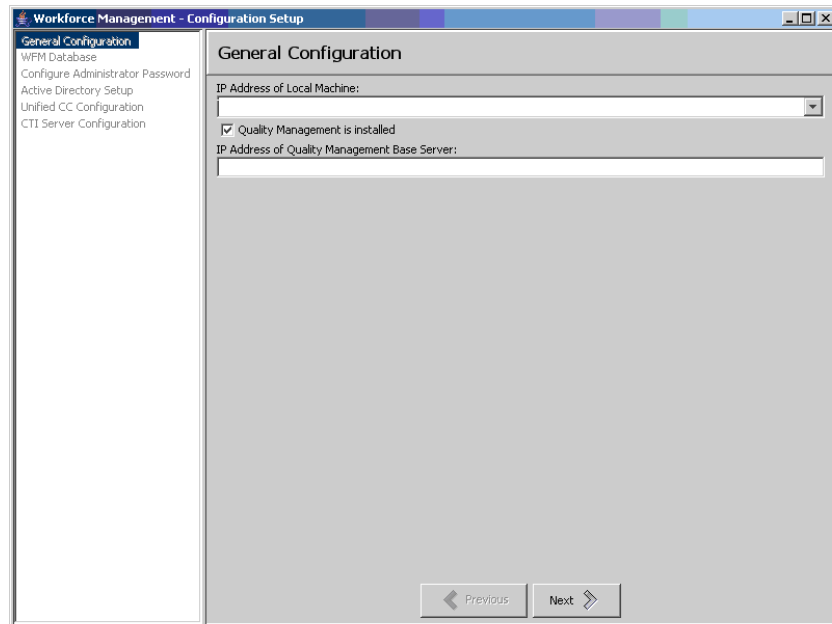
### Step 2. Entering IP addresses

*To enter IP addresses:*

1. From the General Configuration window (Figure 8), select an IP address from the **IP Address of Local Machine** list or enter the IP address for the local machine on which the WFM application is installed.



Figure 8. Workforce Management — Configuration Setup: General Configuration



2. If Quality Management is installed, select the **Quality Management is installed** check box and enter the IP address for the Quality Management base server.
3. Click **Next**.

**NOTE:** The WFM installation wizard fails if you enter incorrect information. The following list identifies potential reasons why the WFM installation wizard fails:

- If you enter an invalid IP address the Configuration Setup will display an error messages. Correct the IP address and try again. Note that WFM only recognizes active IP addresses. It might not know what is installed on the machine associated with the IP address.
- If there is no SQL server with the appropriate user name and password installed at the IP address for the local machine, the WFM database step will fail.
- If you enter a valid IP address that is not associated with a machine running the WFM application, no error messages will appear.

The WFM Configuration Setup tool validates the IP addresses and displays the WFM Database window. Go to ["Step 3. Entering SQL username and password" on page 34.](#)

### Step 3. Entering SQL username and password

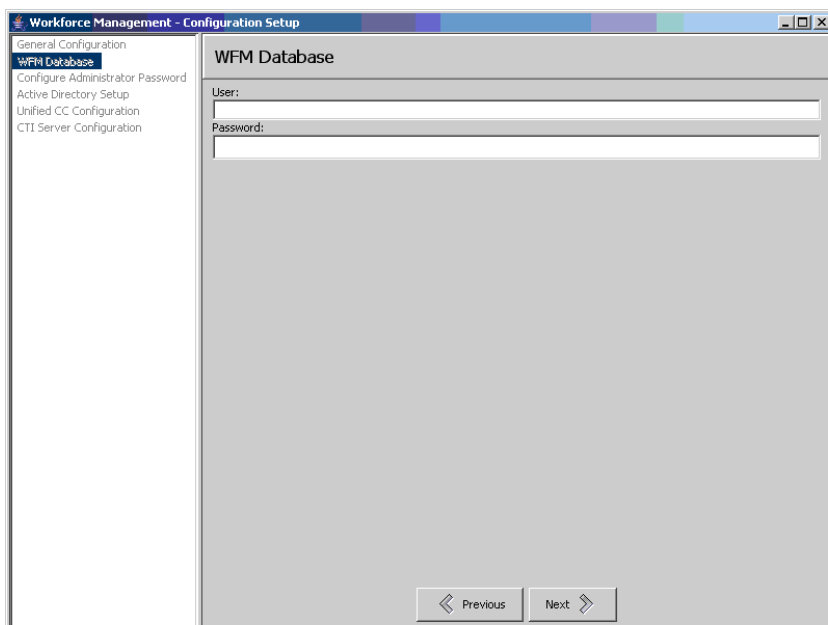
*To enter the SQL username and password:*

1. From the WFM Database window (Figure 9), enter the username and password for the Microsoft SQL Server 2005 and click **Next**.

Instructions for creating a username and password for the Microsoft SQL Server 2005 is provided in ["Install Microsoft SQL Server 2005" on page 22](#).

**NOTE:** You must have permission to create databases.

Figure 9. Workforce Management – Configuration Setup: WFM Database



The Configuration Setup tool creates the WFM database and loads the default data. When the Configure Administrator Password window appears, go to ["Step 4. Configuring the WFM administrator's password" on page 35](#).

**NOTE:** If an error message appears while running the Configuration Setup tool, correct the problem and try again. If you need more information on a specific error, see *Cisco Workforce Management Services Information*.

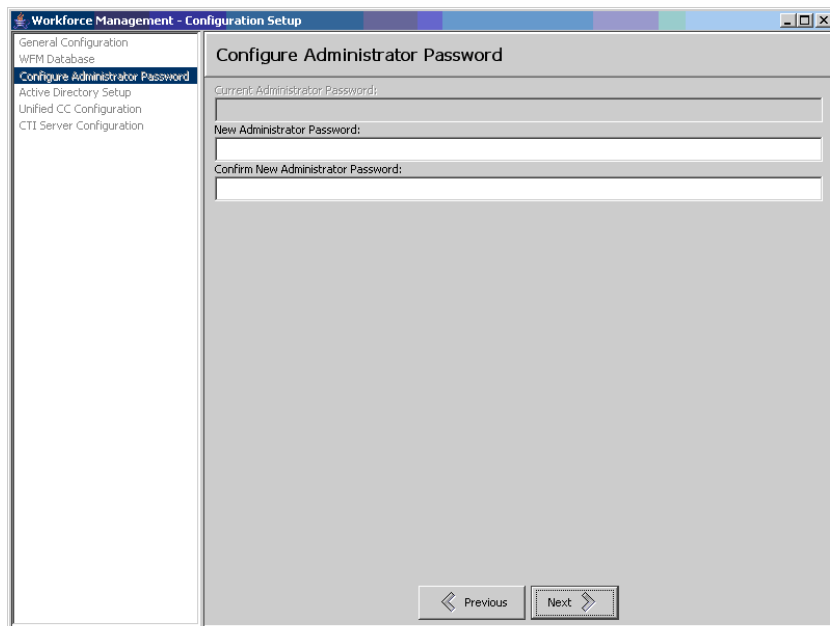
## Step 4. Configuring the WFM administrator's password

To enter the WFM administrator's password:

1. From the Configure Administrator Password window (Figure 10), if you are:
  - Installing Workforce Management for the first time, enter the password for the WFM administrator in the **New Administrator Password** and **Confirm Administrator Password**.
  - Updating Workforce Management, enter the password for the WFM administrator in the **Current Administrator Password** field.

**NOTE:** Please remember this password. You will need it when you log into Workforce Management for the first time.

Figure 10. Workforce Management — Configuration Setup: Configure Administrator Password



The screenshot shows a window titled "Workforce Management - Configuration Setup". On the left is a navigation pane with the following items: "General Configuration", "WFM Database", "Configure Administrator Password" (which is selected and highlighted), "Active Directory Setup", "Unified CC Configuration", and "CTI Server Configuration". The main area of the window is titled "Configure Administrator Password" and contains three text input fields: "Current Administrator Password:", "New Administrator Password:", and "Confirm New Administrator Password:". At the bottom of the window are two buttons: "Previous" and "Next".

2. Click **Next**.

When the Active Directory Setup window appears, go to ["Step 5. Setting up the Active Directory" on page 36](#).

## Step 5. Setting up the Active Directory

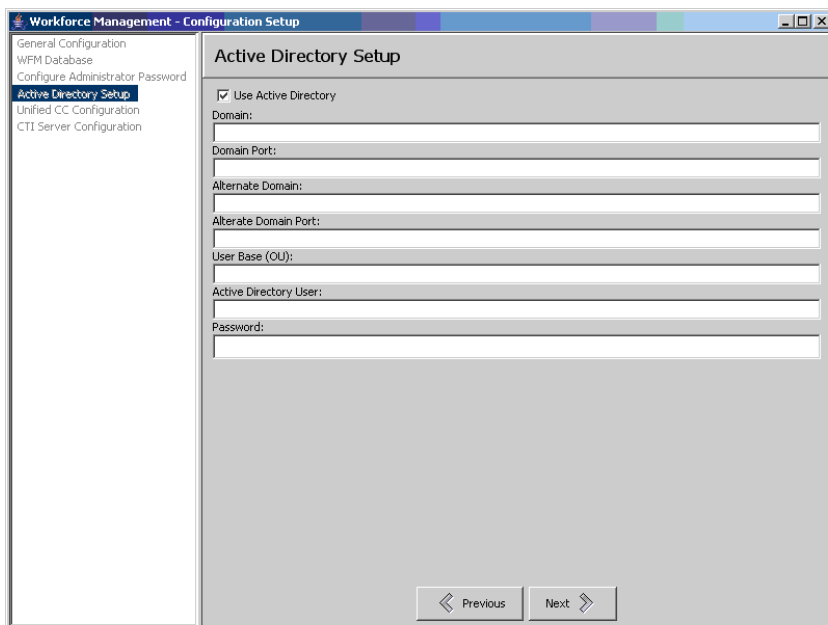
This is an optional step. If you do not intend to use Active Directory to manage users in the WFM application, click **Next** and go to "[Step 6. Configuring Unified CCX for WFM](#)" on page 37. If you intend to use Active Directory, follow the instructions below.

### To set up the Active Directory:

1. From the Active directory Setup window (Figure 11), select the **Use Active Directory** check box.

The **Use Active Directory** check box is clear by default.

Figure 11. Workforce Management — Active Directory Setup



The screenshot shows the 'Workforce Management - Configuration Setup' window. On the left, a navigation pane lists several configuration steps: 'General Configuration', 'WFM Database', 'Configure Administrator Password', 'Active Directory Setup' (which is selected and highlighted), 'Unified CC Configuration', and 'CTI Server Configuration'. The main area is titled 'Active Directory Setup'. It features a checked checkbox for 'Use Active Directory'. Below this are several text input fields: 'Domain:', 'Domain Port:', 'Alternate Domain:', 'Alternate Domain Port:', 'User Base (OU):', 'Active Directory User:', and 'Password:'. At the bottom of the window, there are two buttons: 'Previous' with a left-pointing arrow and 'Next' with a right-pointing arrow.

2. Enter the domain name associated with the Active Directory and its port number in the **Domain** and **Domain Port** fields.
3. If you want to add a second domain name, enter the second domain name and port in the **Alternate Domain** and **Alternate Domain Port** fields.
4. Enter a path to the user search base (OU) in the **User Base (OU)** field.
5. Enter a path to common names (CN) in the Active Directory account in the **Active Directory User** field.
6. Enter the password associated with the Active Directory user in the **Password** field.

The WFM application uses this password to access the Active Directory.

7. Click **Next**.

The Unified CC Configuration window appears. Go to "[Step 6. Configuring Unified CCX for WFM](#)" on page 37.

## Step 6. Configuring Unified CCX for WFM

### To configure Unified CCX for WFM:

1. From the Configuring the Unified CC window, enter the IP address for Unified CCX Side A (Figure 12).

**Figure 12.** Workforce Management — Configuration Setup: Unified CC Configuration

The screenshot shows a web-based configuration window titled "Workforce Management - Configuration Setup". On the left is a sidebar with a tree view containing the following items: "General Configuration", "WFM Database", "Configure Administrator Password", "Active Directory Setup", "Unified CC Configuration" (which is highlighted in blue), and "CTI Server Configuration". The main content area is titled "Unified CC Configuration" and contains several input fields: "Unified CC Side A IP Address:", "Unified CC Side B IP Address:", "Unified CC Instance:", and "Unified CC Version:". Below these fields are two radio buttons: "NT Authentication" (which is selected) and "SQL Authentication". At the bottom of the main area, there are two more input fields: "SQL User:" and "Password:". At the very bottom of the window, there are two buttons: "Previous" with a left-pointing arrow and "Next" with a right-pointing arrow.

2. If the Unified CCX has a Side B, enter the IP address for Side B.

If the Unified CCX does not have a Side B, enter the side A IP address again for Side B.

**NOTE:** You must enter an IP address for Side B. If you leave the Side B field blank, the OOC service will not be able to retrieve historical data.

3. Enter the name of the SQL Instance for Unified CCX.
4. Choose the version of Unified CCX from the list. The available options are Express 4.1 and Express 5.0.
5. Choose one of the following database access methods:
  - **NT Authentication** – Choose this option if you want to use NT Authentication for Unified CCX.
  - **SQL Authentication** – Choose this option if you want to use SQL Authentication for Unified CCX. This field is disabled if you select Express 5.0 from the Unified CC Version field.

**NOTE:** The version of Unified CCX chosen in the Unified CC Version field determines what database access methods are available. If a database access method is not available for your chosen version of Unified CCX, the option is disabled.

6. If enabled, enter the SQL Instance username and password.
7. Click **Next**.

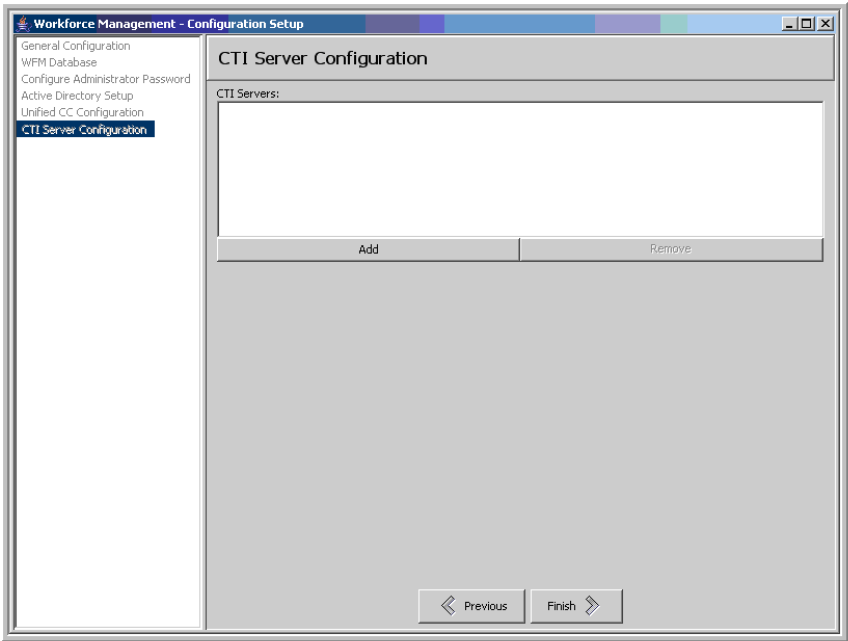
The CTI Server Configuration window appears. Go to ["Step 7. Configuring Unified Contact Center servers for WFM" on page 38](#).

## Step 7. Configuring Unified Contact Center servers for WFM

*To configure Unified Contact Center servers for WFM:*

1. From the CTI Server Configuration window (Figure 13), add or remove a Unified Contact Center server.

Figure 13. Workforce Management – Configuration Setup: CTI Server Configuration

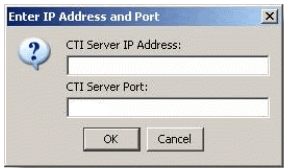


To add a Unified Contact Center server:

- a. Click **Add**.

The Enter IP Address and Port dialog appears (Figure 14).

Figure 14. Enter IP Address and Port



- b. Enter the IP address and port number for the Unified Contact Center server.
- c. Click **OK** to save your changes and close the dialog.

The IP address and port number appears in the CTI Servers list.

To remove a Unified Contact Center server:

- a. Choose a server from the **CTI Servers** list.
- b. Click **Remove**.

The IP address and port number disappears from the CTI Servers list.

2. When you are done making your changes, click **Finish**.

The Workforce Management – Configuration Setup window closes.

## Step 8. Rebooting the system

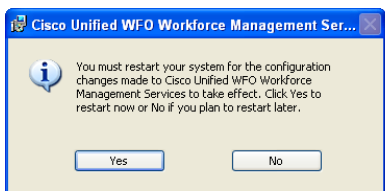
You might be prompted to reboot the machine if the Windows Installer Engine has determined that your system requires a reboot to complete the install. If you do not see the reboot dialog, you can ignore this step.

**NOTE:** If you rebooted the system before running the Configuration Setup tool, you can ignore this step.

### *To reboot the system:*

1. If the reboot dialog (Figure 15) appeared when you installed the WFM application, click **Yes** to complete the installation and reboot the system.

**Figure 15.** Reboot dialog





## Setting up NT Authentication for the Cisco Unified CC Database

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If you select NT Authentication on the Cisco Unified CC Configuration window in WFM Configuration Setup (see "[Step 6. Configuring Unified CCX for WFM](#)" on page 37), you must perform the following procedure to support NT authentication for the Cisco Unified CC database.

These steps must be done after you install the WFM and before you start administering any users with WFM.

To set up NT authentication for the Cisco Unified CC database, you must:

1. Set up NT users who will be used to connect to the database. A user must be known on both the CRS server and the WFM server, and the CRS server cannot be on a domain.
2. Configure the WFM Sync and OOC services to run as the authenticating user.
3. Verify the connection.

### Step 1. Setting up NT users

*To set up NT users who will be used to connect to the database:*

On the CRS server:

1. Add a user.
2. Add this user to the CRSUser and Administrator groups.

On the QM server:

1. Add a user with the same username and password as the user created on the CRS server.
2. Add this user to the Administrator group
3. Set the user to have permissions to log on as a service.

*To add a user:*

1. Right-click **My Computer** and select **Manage**.
2. Under Local Users and Groups, right-click **Users** and select **New User**.
3. Enter a username and password, clear the **User must change password at next logon** check box, select the **Password never expires** check box, and then click **Create**.

The user is now added to the list of users.

*To add a user to a group:*

1. Under Local Users and Groups, right-click the user, choose **Properties**, and select the **Member of** tab.
2. Click **Add**, and then click **Advanced**.
3. Click **Find Now**, and from the resulting list select the groups you want the user to belong to.
4. Click **OK** to close the Select Groups dialog box, and **OK** again to close the User Properties dialog box.

*To give a user permissions to log on as a service:*

1. In Control Panel, select **Administrative Tools > Local Security Policy**.
2. In the left pane, select **Local Policy > User Rights Assignment**, and in the right pane, double-click **Log on as a service**.
3. In the resulting dialog box, click **Add User or Group**, and then enter the username or click **Find Now** to select the username from a list, and then click **OK**.

## **Step 2. Configuring WFM Sync and OOC services to run as the authenticating user**

*To configure the WFM Sync and OOC services to run as the authenticating user:*

1. On the computer hosting the WFM services, open the Services utility in Control Panel (under Administrative Tools).
2. Right-click the Workforce Management Sync Service and choose **Properties** from the popup menu.
3. On the Log On tab, choose **This Account** and enter the username and password of the Windows user whose credentials you want to use for authentication.
4. Right-click the Workforce Management Sync Service and choose **Start**, or **Restart** if the service is already started, from the popup menu.
5. Right-click the Workforce Management OOC Service and choose **Properties** from the popup menu.
6. On the Log On tab, choose **This Account** and enter the username and password of the Windows user whose credentials you want to use for authentication.
7. Right-click the Workforce Management OOC Service and choose **Start**, or **Restart** if the service is already started, from the popup menu.

**NOTE:** The Windows user must have write access to the C:\Program Files\Cisco\WFO\_WFM\log folder so logs can be written.

### Step 3. Verifying the connection

*To verify the connection:*

1. Start Workforce Management.
2. Click **Agents > Agent**. If there are users listed there, the synchronization worked.
3. Check the log file for the OOC service in C:\Program Files\Cisco\WFO\_WFM\yyyymmdd-ooCollector.log, where yyyymmdd is the date, and verify there are no error messages in the log file.

## Logging into WFM

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### Using the WFM default username and password

The following table displays the default user role and username for WFM. Use this username when you log into WFM for the first time. The password for this username is the one you specified when you configured WFM Service. See [Step 4. Configuring the WFM administrator's password \(page 35\)](#) for more information.

User Role	Username
Administrator	administrator

**NOTE:** For security purposes, you should modify or delete the Administrator username and password after you add your own administrators.

## Logging into WFM

### To log into WFM:

1. Enter the following URL in your web browser:

`http://wfm:8087/c3/`

Where *wfm* is the IP address of the server on which WFM application software is installed.

**NOTE:** The Web site address is case-sensitive.

The Workforce Management login window appears (Figure 16).

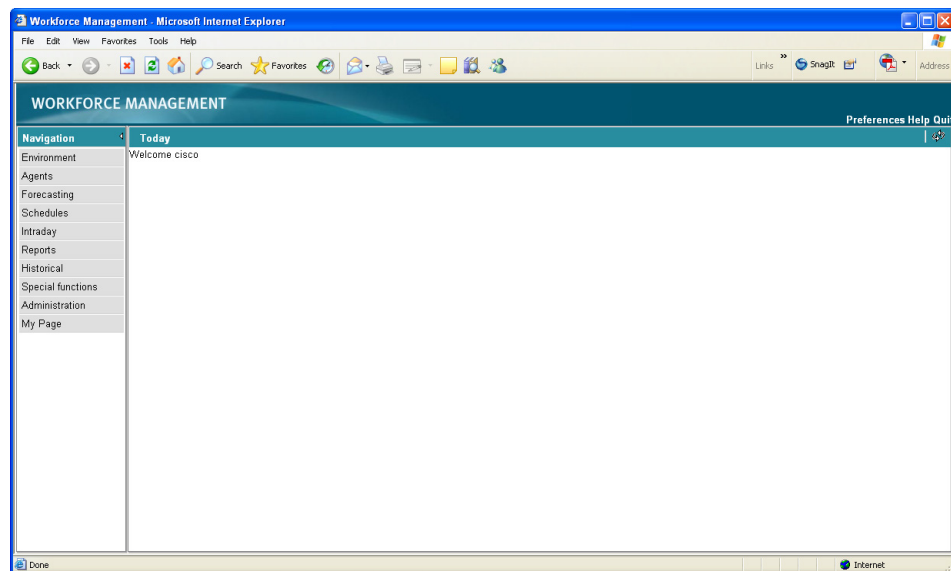
Figure 16. Workforce Management login



2. Enter your username and password.
3. Click **GO** to log into WFM.

The Workforce Management window appears (Figure 17).

Figure 17. Workforce Management window





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## Removing WFM

# 4

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### Removing WFM 8.0

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*To remove a WFM application:*

1. From the **Start** menu, click **Settings**, then **Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Select **Cisco Unified WFO Workforce Management Services**, click **Remove** and follow the prompts.
4. Reboot the computer when prompted.

You must reboot the computer to completely remove all WFM files.

**NOTE:** When you remove the application the database remains.

. The following table lists the programs you will find on the server.

<b>Server</b>	<b>Applications to Remove</b>
Cisco Unified WFO Workforce Management Server	Cisco Unified WFO Workforce Management Services *

\* JRE and Tomcat are automatically removed when you remove Cisco Unified WFO Workforce Management Services.





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