

Microsoft Dynamics CRM 2011 Installing Guide

5.0.0



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Overview

This guide is part of the Microsoft Dynamics CRM Implementation Guide, which consists of the following three documents:

- **Planning Guide:** Use this guide to determine what you have to plan for Microsoft Dynamics CRM. It includes coverage in the following areas:
 - ▶ **Technical.** These topics focus on supported topologies, system requirements, and technical considerations to address before installation.
 - ▶ **Implementation Methodology.** Learn about the business management, system requirements, and project management aspects that are needed when you deploy a CRM system. In addition, there are several documents that you can use as tools to plan the implementation of Microsoft Dynamics CRM. These tools are available for download at *Planning Tools* (<http://go.microsoft.com/fwlink/?LinkID=189326>).
- **Installing Guide:** Use this guide to learn about how you install Microsoft Dynamics CRM applications. This guide includes step-by-step instructions for running Setup, command-line installation instructions, and guidance about how to remove Microsoft Dynamics CRM.
- **Operating and Maintaining Guide:** You can read this guide to learn how to back up, restore, and perform system recovery for Microsoft Dynamics CRM data. Also, this guide has troubleshooting steps for known issues.

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Microsoft Dynamics CRM editions and licensing

Microsoft Dynamics CRM offers editions that cover implementations for small, to mid-level, to even very large organizations.

Editions

- Microsoft Dynamics CRM 2011 Server. There is no user limit for this edition. Additional features include support for multiple organizations, multiple server instances, and separate role-based service installation. Role-based services let you increase performance by installing component services on different computers.
- Microsoft Dynamics CRM Workgroup Server 2011. This edition is limited to five, or fewer, users. This version is limited to a single organization and a single computer that is running Microsoft Dynamics CRM Server 2011.

Licensing

A Microsoft Dynamics CRM deployment operates by using a single product key. Microsoft Dynamics CRM 2011 does not require additional product keys to be added when changes are made, such as adding a client access license (CAL). The single product key contains the Microsoft Dynamics CRM version, server license, and the CALs.

You can view and upgrade a license in Deployment Manager. Deployment Manager is a Microsoft Management Console (MMC) snap-in that system administrators can use to manage organizations, servers, and licenses for deployments of Microsoft Dynamics CRM.

Client Access License Types

You can view and modify client access license types for each user in the Users area of the Settings area in the Microsoft Dynamics CRM Web client.

For more information about Microsoft Dynamics licensing, see *How to buy Microsoft Dynamics* (<http://go.microsoft.com/fwlink/?linkid=111388>).

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Note

The subject-line information is used to route your feedback. If you remove or modify the subject line, we may be unable to process your feedback.

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Microsoft Dynamics CRM Server 2011 Installation Instructions

This section explains how to install Microsoft Dynamics CRM Server 2011. In addition, there is installation troubleshooting information and procedures to uninstall Microsoft Dynamics CRM Server 2011.

Important

For up-to-date information, see the *Microsoft Dynamics CRM Server 2011 Readme* (see Readme - <http://go.microsoft.com/fwlink/?LinkID=144915>).

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Components installed during Microsoft Dynamics CRM Server Setup

This section describes what is installed during Microsoft Dynamics CRM Server Setup.

Microsoft Dynamics CRM Server 2011 installed configuration components

When you install Microsoft Dynamics CRM Server 2011, Setup creates the default folders listed in the following table.

Folder	Comments
<i>SystemDrive</i> :\Program Files\Microsoft Dynamics CRM\	Microsoft Dynamics CRM Server 2011 program files
<i>SystemDrive</i> :\Program Files\Microsoft Dynamics CRM\LangPacks\<LanguageID>\Reports\MSCRM	Contains a Microsoft Dynamics CRM subfolder that contains an .rdl file for each default report
<i>SystemDrive</i> :\Program Files\Microsoft Dynamics CRM\LangPacks	Location of Language Pack installations. Language Packs are downloaded and installed separately
<i>SystemDrive</i> :\Program Files\Microsoft Dynamics CRM\Trace	Stores trace file logs when tracing is enabled
<i>SystemDrive</i> :\Program Files\Microsoft Dynamics	Microsoft Dynamics CRM Web site and

Folder	Comments
CRM\CRMWeb	Web services
<i>SystemDrive</i> :\Program Files\Microsoft Dynamics CRM\CRMWeb\CRMReports	Microsoft Dynamics CRM report services

The following Web components are added.

Component	Name	Description
Application Pool	CRMAppPool	Microsoft Dynamics CRM Server Setup creates a separate application pool for the Microsoft Dynamics CRM application.
Application Pool	CRMDeploymentService AppPool	Microsoft Dynamics CRM Server Setup creates a separate application pool for the Deployment Web Service.
Site	Microsoft Dynamics CRM	Web site for Microsoft Dynamics CRM.
Applications	XRMDeployment	Facilitates the implementation of xRM deployments.
Applications	Help	Services the Microsoft Dynamics CRM Help system for the application.

The following Active Directory groups are added. When the Active Directory domain is set to Native Mode, this group must be of the type Domain Local Security or Universal Security.

Group	Description
PrivReportingGroup	Privileged Microsoft Dynamics CRM user group for reporting functions. This group is created during Microsoft Dynamics CRM Server Setup and configured during Microsoft Dynamics CRM Reporting Extensions Setup.
PrivUserGroup	Privileged Microsoft Dynamics CRM user group for special administrative functions; including CRMAppPool identity (domain user or NetworkService). The users who configure Microsoft Dynamics CRM Server 2011 must be added to this group.
SQLAccessGroup	All server processes/service accounts that require access to SQL Server; including CRMAppPool identity (domain user or NetworkService). Members of this group have db_owner permission on the Microsoft Dynamics CRM databases.
ReportingGroup	All Microsoft Dynamics CRM users are included in this group. This group is updated automatically as users are added and removed from Microsoft Dynamics CRM. By default, all Microsoft Dynamics CRM Reporting Services reports grant Browse permission to this group.

The following services are added.

Service	Description
Microsoft Dynamics CRM Asynchronous Processing	Services asynchronous processes such as bulk e-mail and workflow.

Service	Description
Service	
Microsoft Dynamics CRM Asynchronous Processing Service (maintenance)	Services asynchronous maintenance such as encryption key generation for authentication and database deletion clean up.
Microsoft Dynamics CRM Unzip Service	Handles the uncompressing of zipped files for data import. This service is installed as part of the Web Application Server role.
Microsoft Dynamics CRM Sandbox Processing Service	The Sandbox Processing Service server role enables an isolated environment to allow for the execution of custom code, such as plug-ins.

The following SQL Server components are added.

Component	Name	Description
Databases	MSCRM_CONFIG <i>OrganizationName_MSCRM</i>	Microsoft SQL Server Setup creates the <i>SystemDrive:\Program Files\Microsoft SQL Server\MSSQL<ver>\MSSQL\Data\</i> folder and Microsoft Dynamics CRM Server Setup installs the Microsoft Dynamics CRM configuration database and organization databases in it.
SQL Server Jobs	<i>OrganizationName_MSCRM.CreateAuditPartition</i> MSCRM_CONFIG.HardDelete MSCRM_CONFIG.SiteWideCleanup	Microsoft Dynamics CRM Server Setup creates three SQL Server jobs that are used for maintenance.
Logins	PrivReportingGroup ReportingGroup SQLAccessGroup	Microsoft Dynamics CRM Server Setup creates several SQL Server logins for the Active Directory groups that are created.

Other software components installed during setup

If not already installed, the following components are installed for a Full Server during Microsoft Dynamics CRM Server Setup:

- Microsoft SQL Reporting Service Report Viewer Control
- Microsoft SQL Server Native Client
- Microsoft Application Error Reporting Tool
- Microsoft Visual C++ Runtime Library
- Windows Identity Foundation (WIF) Framework
- Windows Server 2008 Web Server Role
- Indexing Service
- Microsoft .NET Framework 4.0, which includes the following components:

NOTE

The installation of Microsoft .NET Framework may require you to restart your computer before you can continue to run Microsoft Dynamics CRM Setup.

- ▶ Microsoft .NET Framework (required by Microsoft Dynamics CRM Server 2011)
- ▶ Windows Workflow Foundation (required by Microsoft Dynamics CRM Server 2011)

- ▶ Windows Presentation Foundation
- ▶ Windows Communication Foundation (required by Microsoft Dynamics CRM Server 2011)
- Microsoft Chart Controls for Microsoft .NET Framework
- Windows Azure platform AppFabric SDK
- Windows PowerShell
- Microsoft URL Rewrite Module for IIS
- File Server Resource Manager

Microsoft Dynamics CRM Server 2011 installation

This section covers procedures to install Microsoft Dynamics CRM Server 2011 on a computer that does not already have Microsoft Dynamics CRM installed.

➤ Follow these steps to install Microsoft Dynamics CRM Server 2011:

1. Verify that you have completed the necessary planning and that you have the required hardware and software components installed and running. For more information see the Planning Guide that is part of this document set.
2. Run Microsoft Dynamics CRM Server Setup.
3. Run Microsoft Dynamics CRM Reporting Extensions Setup. If Microsoft Dynamics CRM Server 2011 and Microsoft Dynamics CRM Reporting Extensions are installed on the same computer, a check box for invoking the Microsoft Dynamics CRM Reporting Extensions Setup will appear during Microsoft Dynamics CRM Server Setup.
4. If you want to configure Microsoft Dynamics CRM Server 2011 for Internet access, start Deployment Manager and run the Configure Claims-Based Authentication Wizard and then the Internet-Facing Deployment Configuration Wizard. For more information see the Microsoft Dynamics CRM Deployment Manager Help.
5. If one or more Microsoft Dynamics CRM users will have their e-mail configured to use the E-mail Router or a forward mailbox, you must install E-mail Router to enable Microsoft Dynamics CRM e-mail message tracking. For more information see the Microsoft Dynamics CRM E-mail Router Installation Instructions topic in this document.

Install Microsoft Dynamics CRM 2011 Server on a server without Microsoft Dynamics CRM installed

➤ To install the Microsoft Dynamics CRM Server 2011 software, follow these steps:

1. Meet all requirements specified in the "System Requirements and Required Components" section of this guide.
2. Log on to the domain as a user who has administrator-level privileges where Microsoft Dynamics CRM will be installed and who is a member of the Administrators group on the local computer. You cannot install the application as a member from a trusted domain.
3. See the *Microsoft Dynamics CRM 2011 Server Readme* (<http://go.microsoft.com/fwlink/?linkid=144915>) file to determine the location of the Microsoft Dynamics CRM installation files.
4. In the folder where the Microsoft Dynamics CRM files are located, move to the Server\amd64 folder, and then double-click **SetupServer.exe**.
5. On the **Welcome to Microsoft Dynamics CRM Setup** page, we recommend that you click **Get updates for Microsoft Dynamics CRM**, to make sure that Setup has the most recent installation files. Click **Next**.
6. On the **Product Key Information** page, type your product key in the **Product key** boxes, and then click **Next**.
7. On the **License Agreement** page, review the information and if you accept the license agreement, click **I accept this license agreement**, and then click **I Accept**.
8. If Setup detects that components are missing, the **Install Required Components** page appears.
 - ▶ If you have already installed the required components, this page will not appear.

- ▶ If you have not installed the required components listed, you can install them now. Click **Install**. When the components are installed, the status column will change from **Not Installed** to **Installed**, and you can click **Next** to continue.

Note

- ▶ If you are prompted to restart the computer, do so, and then start Setup again.
9. On the **Select Installation Location** page, accept the default location or enter a different file installation location, and then click **Next**.
 10. If you are installing Microsoft Dynamics CRM Server 2011, the **Specify Server Roles** page appears. By default, Full Server is selected and will install all server roles on the computer. Alternatively, you can select a predefined group of server roles or one or more individual server roles. Notice that all server roles must be deployed on the network in the same Active Directory domain for Microsoft Dynamics CRM to operate correctly. For more information, see "Planning Deployment" in the Microsoft Dynamics CRM 2011 Planning Guide. Click **Next**.

Important

When you select a server role other than Full Server, Microsoft Dynamics CRM Server Setup does not create an organization database during the installation. If the deployment does not have an organization database, you must use Deployment Manager to create a new organization. For information about how to create a new organization, see the Deployment Manager Help.

11. On the **Specify Deployment Options** page, if Setup detects an existing deployment, you can select whether you want to create a new deployment or connect to an existing deployment. In the **Enter or select the name of the computer that is running SQL Server to use with the deployment** box, type or select the instance of SQL Server that will be used to store the Microsoft Dynamics CRM database (MSCRM_CONFIG).

Important

When you select **Create a new deployment**, Setup creates a new organization database using the name that you specified and a configuration database by using the name MSCRM_CONFIG. An error message will appear if an MSCRM_CONFIG database already exists. You must delete this database to create a new MSCRM_CONFIG database. Only one deployment is supported for each instance of SQL Server.

When you select **Connect to, and if necessary, upgrade an existing deployment**, Setup requires that a configuration database (MSCRM_CONFIG) already exist on the computer that is running SQL Server. An error message will appear if an MSCRM_CONFIG database does not already exist.

12. On the **Select the Organizational Unit** page, click **Browse** to display your Active Directory structure. Select the location where you want the Microsoft Dynamics CRM organizational unit to be installed into, click **OK**, and then click **Next**. Microsoft Dynamics CRM security groups are created in this organizational unit.
13. On the **Specify Service Accounts** page, select the security accounts for the Microsoft Dynamics CRM services, and then click **Next**.

The services are described below. For more information, see Minimum permissions required for Microsoft Dynamics CRM Setup, service and components in the Planning Guide.

- ▶ **Application Service**. This service runs the Microsoft Dynamics CRM Web application that is used to connect users to CRM data.
- ▶ **Deployment Web Service**. Manages the deployment by using the methods described in the Microsoft Dynamics CRM 2011 Deployment Software Development Kit, such as create an organization or remove a Deployment Administrator role from a user.
- ▶ **Sandbox Processing Service**. Enables an isolated environment to allow for the execution of custom code, such as plug-ins. This isolated environment reduces the possibility of custom code affecting the operation of the organizations in the Microsoft Dynamics CRM deployment.
- ▶ **Asynchronous Processing Service**. Processes queued asynchronous events, such as bulk e-mail or data import.

Important

- We strongly recommend that you select a low-privilege domain account that is dedicated to running these services and is not used for any other purpose. Additionally, the user account

that is used to run a Microsoft Dynamics CRM service cannot be a Microsoft Dynamics CRM user. This domain account must be a member of the Domain Users group. Additionally, if the Asynchronous Service and Sandbox Processing Service roles are installed, such as in a Full Server or a Back End Server installation, the domain account must be a member of the Performance Log Users security group.

- If you select to run the ASP.NET service under a domain user account that is not a domain administrator or a local administrator, you must set a local security policy after you install Microsoft Dynamics CRM Server 2011 for the ASP.NET service to work correctly. Also, depending on the password policies that you have implemented for your organization, the password for the user may expire. For more information, see the Microsoft Knowledge Base article 329290, *How to use the ASP.NET utility to encrypt credentials and session state connection strings* (<http://go.microsoft.com/fwlink/?linkid=53266>).

14. On the **Select a Web Site** page, click **Create a new Web site** or click **Select a Web Site** and select a Web site from the list. By default, Setup will use the default Web site.

Important

We strongly recommend that you verify the status of the existing Web site before you specify Setup to use an existing Web site.

We strongly recommend that the Web site you select is configured for SSL. For more information, see the IIS documentation. During the installation, Setup will bind the Microsoft Dynamics CRM application to the HTTPS Web site.

If you select a network port other than a default port ensure that the firewall does not block the port.

When you select the **Create a new Web site** option, Setup creates a new Web site for Microsoft Dynamics CRM Server 2011. You can specify the following option:

- ▶ **Port Number.** Type the TCP port number that Microsoft Dynamics CRM clients will use to connect to the Microsoft Dynamics CRM Server 2011. The default port number is 5555.

15. Click **Next**.
16. On the **Specify E-mail Router Settings** page, in the **E-mail Router server name** box, type the name of the computer where the E-mail Router will be installed. This computer route Microsoft Dynamics CRM e-mail messages. If you will not install the E-mail Router you can leave this box blank. However, if you install the E-mail Router later you must add the computer where the E-mail Router is installed to the PrivUserGroup security group. Click **Next**.
17. On the **Specify the Organization Name** page, specify the following information.
 - a. In the **Display Name** box, type the name of your organization.
 - b. In the **Name** box, you can keep the name that is automatically generated or you can type a unique name that must be limited to 30 characters. Spaces and extended characters are not allowed.
 - c. Under **ISO currency code**, click **Browse**, select the ISO currency code that you will use as the base currency for the organization in the list, and then click **OK**.
You can change the currency's symbol, name, or precision.
 - d. In the **Base Language** list, select the base language for the organization.
In Microsoft Dynamics CRM 2011, only the base language of the first organization is tied to the language of the server installation. All other organizations can have different base languages, but you must first install Language Packs for the other language. For instructions about how to install Language Packs, see *Language Pack Installation Instructions* (<http://go.microsoft.com/fwlink/?LinkId=199560>).
 - e. In the **SQL collation** list, keep the default selection or select a different database collation that the organization database will use to sort and compare data characters.
The default SQL collation changes based on the base language selection.
For more information, see *SQL Server Collation Fundamentals* (<http://go.microsoft.com/fwlink/?LinkID=202029>).
 - f. Click **Next**.

Important

After Setup is complete, you cannot change the database collation, base ISO currency code, or the organization unique name. However, you can change the base currency name and base currency symbol.

18. On the **Specify Reporting Services Server** page, type the Report Server URL. Make sure that you use the Report Server URL, not the Report Manager URL. To verify that you are using the correct URL, in a browser, type the Report Server URL as the address. You should see a page titled `<server>/ReportServer - /:` with text that displays the version number: Microsoft SQL Server Reporting Services Version `<version number>`. Click **Next**.
19. On the **Help Us Improve the Customer Experience** page, select whether you want to participate in the Customer Experience Improvement Program, and then click **Next**.

Note

For more information, see *Microsoft Customer Experience Improvement Program*
<http://go.microsoft.com/fwlink/?LinkId=199851>.

20. On the **Select Microsoft Update OptIn** page, you must select either of the following options. For information about the legal terms and privacy with Microsoft Update licensing see *Windows Update FAQ* (<http://go.microsoft.com/fwlink/?LinkId=196513>).
 - ▶ **Use Microsoft Update when I check for updates (recommended)**. By selecting this option, Microsoft Dynamics CRM Server will use the Microsoft Update settings on the computer.
 - ▶ **I don't want to use Microsoft update**. You should only select this option if the computer uses another method to install updates such as by using Microsoft Windows Server Update Services (WSUS).
21. The **System Checks** page appears. This page is a summary of all requirements and recommendations for a successful installation. Errors must be resolved before installation can continue. If no errors, or only warnings appear, you can continue with the installation. To do this, click **Next**.
22. The **Service Disruption Warning** page appears. This page lists all services that will be stopped or restarted during Setup.
23. Review the **Ready to Install Microsoft Dynamics CRM** page, and then click **Back** to correct any warnings. When you are ready to continue, click **Install**.

When Setup completes successfully, the **Microsoft Dynamics CRM Server setup completed** page appears. If the Reporting Server instance that you specified during this Setup points to the local computer where Microsoft Dynamics CRM is installed, Setup provides an option to invoke Microsoft Dynamics CRM Reporting Extensions Setup.

24. To install Microsoft Dynamics CRM Reporting Extensions on the computer now, select the **Launch Microsoft Dynamics CRM Reporting Extensions Setup** check box. Click **Finish**.

Important

- After you install Microsoft Dynamics CRM Server 2011, you must install the Microsoft Dynamics CRM Reporting Extensions to create, run, and schedule reports in Microsoft Dynamics CRM. For instructions, see the *Install Microsoft Dynamics CRM Reporting Extensions* section.
- You cannot install the Microsoft Dynamics CRM Reporting Extensions before you install or upgrade Microsoft Dynamics CRM Server 2011.
- By default, Setup turns on HTTP compression on the server that is running IIS where the Microsoft Dynamics CRM Server 2011 Web application is installed. If you use another method to compress HTTP communications, you may want to turn this feature off. To do this, start Internet Services (IIS) Manager, click the Web site, double-click **Compression**, and then clear the compression check boxes.
- For an IFD deployment, after Microsoft Dynamics CRM Server Setup completes, you must configure Claims-based authentication and the relying parties on the STS server. Then, run the IFD Configuration Wizard to complete the configuration. For information about this configuration see the Post installation tasks topics in this guide.

Install Microsoft Dynamics CRM Reporting Extensions

Microsoft Dynamics CRM Reporting Extensions has the following requirements:

- You must complete Microsoft Dynamics CRM Server Setup before you run CRM Reporting Extensions Setup.
- You must run CRM Reporting Extensions Setup on a computer that has Microsoft SQL Server 2008 Reporting Services or Microsoft SQL Server 2008 R2 Reporting Services installed.

Warning

Microsoft Dynamics CRM users who use the Report Viewer control included with Microsoft Visual Studio 2008 can view information from the reports that they have access to. By using this control, the user can view additional report and session data that is not displayed when running the report in Microsoft Dynamics CRM. To reduce the risk of exposing confidential data, we recommend that you configure the SQL Server Microsoft SQL Server Reporting Services Web site where the Microsoft Dynamics CRM Reporting Extensions is installed to allow only secure sockets layer (SSL), also known as Secure HTTP, connections. For more information, see the *Microsoft SQL Server Reporting Services Help* (see Configuring a Report Server for Secure Sockets Layer (SSL) Connections - <http://go.microsoft.com/fwlink/?LinkId=201073>).

To reduce the risk of certain security vulnerabilities, we strongly recommend that you use different Active Directory accounts for the application pools used to run the Microsoft Dynamics CRM Server 2011 and SQL Server Reporting Services Web sites.

➤ To install the CRM Reporting Extensions, locate the Microsoft Dynamics CRM installation files, and follow these steps:

1. In the /SrsDataConnector/ folder, double-click **SetupSrsDataConnector.exe**.
2. On the **Welcome to Microsoft Dynamics CRM Reporting Extensions Setup** page, select whether you want to update Microsoft Dynamics CRM Server Setup. We recommend that, if updates are available, you let Setup download the latest version. To do this, click **Update installation files**, wait until the update process is complete, and then click **Next**.
3. On the **License Agreement** page, review the information and, if you accept the license agreement, click **I accept this license agreement**, and then click **I Accept**.
4. If Setup detects that components are missing, the **Install Required Components** page appears.
 - ▶ If you have already installed the required components, this page will not appear.
 - ▶ If you have not installed the required components listed, you can install them now. Click **Install**. When the components are installed, the status column will change from **Missing** to **Installed**, and you can click **Next** to continue.
5. On the **Specify Configuration Database Server** page, if you are using the default instance of the SQL Server, enter the name of the computer that is running SQL Server and contains the Microsoft Dynamics CRM configuration database that is named MSCRM_CONFIG, and then click **Next**.

Note

If you are not using the default SQL Server instance, enter <machine-name>\<instance-name>.

6. On the **Specify SSRS Instance Name** page, select a Microsoft SQL Server Reporting Services instance that will be used for Microsoft Dynamics CRM reporting, and then click **Next**.
7. On the **Select Microsoft Update OptIn** page, select whether you want to use Microsoft Update for checking for updates for your Microsoft products, and click **Next**. We recommend that you use the Microsoft Update to check for updates because this keeps your computer up-to-date and secure.
8. On the **Select Installation Location** page, click **Browse**, and select a path where you want to install CRM Reporting Extensions, and then click **Next**.
9. The **System Checks** page appears. This page is a summary of the requirements for a successful CRM Reporting Extensions installation. Errors must be corrected before installation can continue. All errors must be resolved. If no errors or only warnings appear, you can continue with the installation. To do this, click **Next**.

10. Review the **Ready to Install Microsoft Dynamics CRM Reporting Extensions** page, and then click **Back** to correct any errors. When you are ready to continue, click **Install**.
11. When Setup completes successfully, the **Microsoft Dynamics CRM Reporting Extensions Setup Completed** page appears. Click **Finish**.

The reports will be published for the default organization.

Important

The reports will not be published if:

- The user running CRM Reporting Extensions Setup does not have appropriate permissions on the organization database.
- CRM Reporting Extensions are installed for an SQL Server Reporting Services instance that is different from the one that is being used by the organization.
- The base language of the organization is different from the language in which CRM Reporting Extensions are being installed.

Microsoft Dynamics CRM Report Authoring Extension Installation Instructions

Microsoft Dynamics CRM Report Authoring Extension is a plug-in that obtains the metadata and data from Microsoft Dynamics CRM. This metadata is required to design and preview Fetch-based reports in Business Intelligence Development Studio.

Note

Microsoft Dynamics CRM Report Authoring Extension is only available in a 32-bit version.

Other software components installed during Microsoft Dynamics CRM Report Authoring Extension Setup

If not already installed, the following components are installed during Microsoft Dynamics CRM Report Authoring Extension Setup:

- Microsoft Application Error Reporting Tool
- Windows Live ID Sign-in Assistant

Microsoft Dynamics CRM Report Authoring Extension Installation Instructions

Microsoft Dynamics CRM Report Authoring Extension is a plug-in that obtains the metadata and data from Microsoft Dynamics CRM. This metadata is required to design and preview Fetch-based reports in Business Intelligence Development Studio.

1. In the /BIDSExtensions/ folder, double-click **SetupBIDSExtensions.exe**.
2. On the **Welcome to Microsoft Dynamics CRM Report Authoring Extension Setup** page, we recommend that you click **Get updates for Microsoft Dynamics CRM**, to make sure that Setup has the most recent installation files. Click **Next**.
3. On the **License Agreement** page, review the information, and if you accept the license agreement, select the **I accept this license agreement** check box, and then click **I Accept**.
4. If Setup detects that some required components are missing, the **Install Required Components** page appears. To install them, click **Install**. When the components are installed, the status column will change from **Not Installed** to **Installed**. Click **Next** to continue.
5. On the **Select Microsoft Update Preference** page, we recommend that you select the **Use Microsoft Update when I check for updates (recommended)** option. Microsoft Update makes sure that your computer has the latest technology, which can help to reduce the risk of vulnerabilities and security issues.
6. On the **Select Installation Location** page, accept the default location or enter a different file installation location, and then click **Next**.

7. On the **System Checks** page, a summary of all requirements and recommendations for a successful installation is shown. Errors must be corrected before installation can continue. If no errors, or only warnings appear, you can continue with the installation. To do this, click **Next**.
8. Review the **Ready to Install Microsoft Dynamics CRM Report Authoring Extension** page, and then click **Back** to correct any errors. When you are ready to continue, click **Install**. When Setup successfully completes, the **Microsoft Dynamics CRM Report Authoring Extension Setup Completed** page appears. Click **Finish**.

Upgrade from Microsoft Dynamics CRM 4.0

This section provides best practice guidelines and actual procedures to install Microsoft Dynamics CRM Server 2011 in an organization that already has Microsoft Dynamics CRM 4.0 installed.

Upgrade options

There are three different upgrade options:

- **Migrate by using a new instance of SQL Server.** We recommend this option for upgrading from Microsoft Dynamics CRM 4.0 to Microsoft Dynamics CRM 2011. Although this option requires a different computer for Microsoft Dynamics CRM 2011 Server and a different instance of SQL Server, it provides the least amount of potential downtime for Microsoft Dynamics CRM users since the Microsoft Dynamics CRM 4.0 deployment can remain functioning until the upgrade is completed and verified.
- **Migrate by using the same instance of SQL Server.** This option requires a different computer for Microsoft Dynamics CRM 2011 Server, but will upgrade in-place the configuration and default organization databases using the same instance of SQL Server. If issues occur during the upgrade, you must roll back to Microsoft Dynamics CRM 4.0 to avoid significant downtime.
- **In-place upgrade.** Although this option does not require a different computer for Microsoft Dynamics CRM 2011 Server or a different instance of SQL Server, it poses the greatest risk if upgrade issues occur because a roll back and reinstall of Microsoft Dynamics CRM 4.0 Server will be required to avoid potential downtime.

Important

You cannot upgrade versions of Microsoft Dynamics CRM that are earlier than Microsoft Dynamics CRM 4.0 to Microsoft Dynamics CRM 2011.

Because Microsoft Dynamics CRM 2011 Server is only available in 64-bit editions, you cannot perform an in-place upgrade with 32-bit versions of Microsoft Dynamics CRM 4.0 Server. For more information see the "Migrate from 32-bit versions of Microsoft Dynamics CRM 4.0 Server to Microsoft Dynamics CRM 2011 Server" topic later in this section.

Microsoft Dynamics CRM Server 2011 upgrade preparations

To prepare a Microsoft Dynamics CRM Server 2011 for the upgrade, follow the guidelines in this section.

Microsoft Dynamics CRM 4.0 server roles are not compatible with a Microsoft Dynamics CRM 2011 deployment. Therefore, after you upgrade the first Microsoft Dynamics CRM 4.0 server, other Microsoft Dynamics CRM 4.0 servers that are running in the deployment will become disabled. As each server is upgraded, the corresponding server will be enabled.

Important

We recommend that for each organization that you upgrade, the volume have free space that is at least three times the size of the organization database file and four times the size of the log file. Therefore, if a single organization database and log file are located on the same volume and are one gigabyte in total, you should have at least seven gigabytes of available disk space before you perform the upgrade.

Software prerequisites

We recommend that you install the following components on the Microsoft Dynamics CRM Server 2011 or the computer where Microsoft Dynamics CRM 4.0 will be migrated to before you run the upgrade:

- Windows Identity Foundation (WIF) Framework

- Microsoft .NET Framework 4.0
- SQL Server Native Client
- Microsoft Application Error Reporting Tool
- Microsoft URL Rewrite Module for IIS

If these components are not present when you run the upgrade, Setup will install them. However, to reduce the upgrade processing time, consider installing these components in advance. These components can be found in the `redist` folder of the Microsoft Dynamics CRM installation media.

Upgrade from Microsoft Dynamics CRM 4.0 Server 64-bit editions

This section outlines the tasks that you must perform to run the actual in-place upgrade on a Microsoft Dynamics CRM server. If you encounter problems during the upgrade, see the Troubleshooting installation and upgrade topic later in this document.

Warning

Following these steps may cause significant application downtime if issues occur during the upgrade. Instead of using an upgrade option that may impact the production deployment, we recommend that you migrate your deployment to Microsoft Dynamics CRM 2011. For information see the *Migrate from 32-bit versions of Microsoft Dynamics CRM 4.0 Server to Microsoft Dynamics CRM 2011 Server* (on page 17) topic.

Important

We strongly recommend that you back up your existing Microsoft Dynamics CRM data, including all reports and customizations, before you run Setup to upgrade your system. In addition, we recommend the following backup strategy be implemented before you run Setup:

1. Configure the Microsoft Dynamics CRM 4.0 databases by using a simple recovery model.
2. Complete a full backup of all production configuration and organization databases and transaction logs.

For more information, see the Backing Up the Microsoft Dynamics CRM System topic in the *Operating and Maintaining Guide*.

Important

- If the Microsoft Dynamics CRM 4.0 deployment is configured for an Internet-facing deployment (IFD), after the upgrade is complete you must run the Configure Claims-Based Authentication Wizard and then the Internet-Facing Deployment Configuration Wizard to re-enable IFD. For more information about Claims-based authentication and IFD, see the Planning Guide and Microsoft Dynamics CRM Deployment Manager Help.
- The user who is running Microsoft Dynamics CRM Server Setup to upgrade an existing Microsoft Dynamics CRM deployment must be a member of the Deployment Administrators group. Additionally, the user must have `db_owner` permission on the Microsoft Dynamics CRM 4.0 databases and have `sysadmin` permission on the SQL Server. For information about how to add a member to the Deployment Administrators group see the Microsoft Dynamics CRM Deployment Manager Help. For more information about how to grant permission in SQL Server, see the SQL Server Management Studio Help.

Tasks to perform before the upgrade

- We recommend that you apply the *Latest Update Rollup for Microsoft Dynamics CRM 4.0* (<http://go.microsoft.com/fwlink/?LinkID=193534>).
- Meet all requirements as specified under the System Requirements and Required Components topic in the Planning Guide.
- Log on to your domain as a user who has administrator-level permission.
- SQL Server replication is not supported with Microsoft Dynamics CRM. If you run SQL Server replication, disable it.
- Make sure that the Microsoft Dynamics CRM server that you are upgrading is connected to the Internet. If you do not have Internet access on that server, see *KB article: How to obtain the setup updates for Microsoft Dynamics CRM 2011* (<http://go.microsoft.com/fwlink/?LinkID=145138>).

- Uninstall Microsoft Dynamics CRM 4.0 Connector for SQL Server Reporting Services if it is installed on the same computer where Microsoft Dynamics CRM Server 2011 is installed.
- See the *Microsoft Dynamics CRM 2011 Server Readme* (<http://go.microsoft.com/fwlink/?linkid=144915>) file to determine the location of the Microsoft Dynamics CRM installation files.

➤ **To run the upgrade, follow these steps**

1. In the folder where the Microsoft Dynamics CRM files are located, move to the Server\amd64 folder, and then double-click **SetupServer.exe**.
2. On the **Welcome to Microsoft Dynamics CRM Setup** page, we recommend that you click **Get updates for Microsoft Dynamics CRM**, to make sure that Setup has the most recent installation files. Click **Next**.
3. On the **Product Key Information** page, type your product key in the **Product key** boxes, and then click **Next**.

Note

If you purchased Microsoft Dynamics CRM through a Microsoft Volume Licensing program, the license key is provided in the **license.txt** file, which is included in the Microsoft Dynamics CRM installation files.

4. On the **License Agreement** page, review the information and if you accept the license agreement, click **I accept this license agreement**, and then click **I Accept**.
5. If Setup detects that components are missing, the **Install Required Components** page appears.
 - ▶ If you have already installed the required components, this page will not appear.
 - ▶ If you have not installed the required components listed, you can install them now. Click **Install**. When the components are installed, the status column will change from **Not Installed** to **Installed**, and you can click **Next** to continue.

Note

- ▶ If you are prompted to restart the computer, do so, and then start Setup again.

6. On the **Upgrade to Microsoft Dynamics CRM 2011** page, click **Next** to upgrade Microsoft Dynamics CRM.
7. On the **Specify E-mail Router Settings** page, in the **E-mail Router server name** box, type the name of the computer where the E-mail Router will be installed. This computer route Microsoft Dynamics CRM e-mail messages. If you will not install the E-mail Router you can leave this box blank. However, if you install the E-mail Router later you must add the computer where the E-mail Router is installed to the PrivUserGroup security group. Click **Next**.
8. On the **Organization Upgrade** page, verify the display name and unique name of the organization, and then click **Next**.
9. On the **Select Microsoft Update OptIn** page, you must select either of the following options. For information about the legal terms and privacy with Microsoft Update licensing see *Windows Update FAQ* (<http://go.microsoft.com/fwlink/?LinkID=196513>).
 - ▶ **Use Microsoft Update when I check for updates (recommended)**. By selecting this option, Microsoft Dynamics CRM Server will use the Microsoft Update settings on the computer.
 - ▶ **I don't want to use Microsoft update**. You should only select this option if the computer uses another method to install updates such as by using Microsoft Windows Server Update Services (WSUS).
10. The **System Checks** page appears. This page is a summary of all requirements and recommendations for a successful installation. Errors must be resolved before installation can continue. If no errors, or only warnings appear, you can continue with the installation. To do this, click **Next**.
11. The **Service Disruption Warning** page appears. This page lists all services that will be stopped or restarted during Setup.
12. Review the **Ready to Upgrade the Application** page, click **Back** to correct any errors. When you are ready to continue, click **Upgrade**.

When Setup completes successfully, the **Microsoft Dynamics CRM Server setup completed** page appears. If the Reporting Server instance that you specified during this Setup points to the local computer where Microsoft Dynamics CRM is installed, Setup provides an option to invoke Microsoft Dynamics CRM Reporting Extensions Setup.

13. To install Microsoft Dynamics CRM Reporting Extensions on the computer now, select the **Launch Microsoft Dynamics CRM Reporting Extensions Setup** check box. Click **Finish**.

Important

- After you install Microsoft Dynamics CRM Server 2011, you must install the Microsoft Dynamics CRM Reporting Extensions to create, run, and schedule reports in Microsoft Dynamics CRM. For instructions, see the *Install Microsoft Dynamics CRM Reporting Extensions* section.
- You cannot install the Microsoft Dynamics CRM Reporting Extensions before you install or upgrade Microsoft Dynamics CRM Server 2011.
- By default, Setup turns on HTTP compression on the server that is running IIS where the Microsoft Dynamics CRM Server 2011 Web application is installed. If you use another method to compress HTTP communications, you may want to turn this feature off. To do this, start Internet Services (IIS) Manager, click the Web site, double-click **Compression**, and then clear the compression check boxes.
- For an IFD deployment, after Microsoft Dynamics CRM Server Setup completes, you must configure Claims-based authentication and the relying parties on the STS server. Then, run the IFD Configuration Wizard to complete the configuration. For information about this configuration see the Post installation tasks topics in this guide.

Upgrade from Microsoft Dynamics CRM 4.0 Server 32-bit editions

This section outlines the tasks that you must perform to migrate Microsoft Dynamics CRM 4.0 Server to Microsoft Dynamics CRM 2011 Server.

Because Microsoft Dynamics CRM 2011 Server is available only for 64-bit editions of Windows Server, in-place upgrades from 32-bit versions of Microsoft Dynamics CRM 4.0 Server cannot be performed.

Important

To avoid potential downtime that may occur as a result of a direct upgrade of a production deployment, we recommend that you consider implementing the migration by using a new instance of SQL Server upgrade option described in the following *Migrate from 32-bit versions of Microsoft Dynamics CRM 4.0 Server to Microsoft Dynamics CRM 2011 Server* (on page 17) topic instead of an in-place upgrade.

Migrate from 32-bit versions of Microsoft Dynamics CRM 4.0 Server to Microsoft Dynamics CRM 2011 Server

To migrate a 32-bit version of Microsoft Dynamics CRM 4.0 Server to Microsoft Dynamics CRM 2011 Server, first establish a different instance of SQL Server, run Microsoft Dynamics CRM Server Setup on a new 64-bit computer to create a new Microsoft Dynamics CRM 2011 deployment, and then run the Import Organization Wizard to import one or more Microsoft Dynamics CRM 4.0 organizations to the newly installed Microsoft Dynamics CRM 2011 system. During the import the Microsoft Dynamics CRM 4.0 organization database will be upgraded.

Migrate by using a new instance of SQL Server

This procedure is useful when the Microsoft Dynamics CRM 4.0 deployment needs to remain available while Microsoft Dynamics CRM 2011 Server is installed (phase 1). Then, the Microsoft Dynamics CRM 4.0 deployment can be taken offline while the organization database is imported and upgraded into the new Microsoft Dynamics CRM 2011 deployment (phase 2).

1. If the configuration (MSCRM_CONFIG) and organization databases were maintained by a version of SQL Server that is not Microsoft SQL Server 2008 64-bit edition, upgrade the server or restore the databases to a supported version of SQL Server.
2. Install Microsoft Dynamics CRM 2011 Server as if it were a new server or server role without a preexisting version. During the installation Microsoft Dynamics CRM Server Setup creates a new Microsoft Dynamics CRM 2011 configuration database. For step-by-step guidance, see the earlier topic *Install Microsoft Dynamics CRM 2011 Server on a server without Microsoft Dynamics CRM installed*.

3. After the installation completes, disable the Microsoft Dynamics CRM 4.0 deployment by running Deployment Manager on the Microsoft Dynamics CRM 4.0 server. For more information, see the Deployment Manager Help.
4. On the SQL Server that is maintaining the existing Microsoft Dynamics CRM 4.0 databases, start Microsoft SQL Server Management Studio and back up the MSCRM_CONFIG and *OrganizationName_MSCRM* databases.
5. Restore the organization databases to the SQL Server that will be maintaining the Microsoft Dynamics CRM 2011 databases.
6. Start Deployment Manager on the Microsoft Dynamics CRM 2011 Server and run the Import Organization Wizard to import and upgrade one or more Microsoft Dynamics CRM 4.0 organizations into the new Microsoft Dynamics CRM 2011 deployment.
7. Verify that the new deployment functions as expected.
8. Make the appropriate DNS and IIS modifications to make sure users are able to connect to the new system.

If issues occur that will cause significant downtime, enable the Microsoft Dynamics CRM 4.0 deployment while the issues are worked on. For more information, see the Deployment Manager Help.

Migrate by using the same instance of SQL Server

If you are migrating Microsoft Dynamics CRM 4.0 32-bit to a new Windows Server 64-bit server that will be running Microsoft Dynamics CRM 2011 and you want to use the same instance of SQL Server that maintains the configuration database, follow these steps:

Warning

Following these steps may cause significant application downtime if issues occur during the upgrade. Instead of using an upgrade option that may impact the production deployment, we recommend that you migrate your deployment to Microsoft Dynamics CRM 2011. For information see the *Migrate from 32-bit versions of Microsoft Dynamics CRM 4.0 Server to Microsoft Dynamics CRM 2011 Server* (on page 17) topic.

1. If the configuration (MSCRM_CONFIG) and organization databases were maintained by a version of SQL Server that is not Microsoft SQL Server 2008 64-bit edition, upgrade the server or restore the databases to a supported version of SQL Server.
2. On the SQL Server that is maintaining the existing Microsoft Dynamics CRM 4.0 databases, start Microsoft SQL Server Management Studio and back up the MSCRM_CONFIG and *OrganizationName_MSCRM* databases.
3. Install Microsoft Dynamics CRM 2011 Server on the new 64-bit computer. During Microsoft Dynamics CRM Server Setup, select **Connect to, and if necessary, upgrade an existing deployment** on the **Specify Deployment Options** page during Microsoft Dynamics CRM Server Setup. Specify the SQL Server instance from the previous step and continue with the installation and organization upgrade. For guidance, see the *Install Microsoft Dynamics CRM 2011 Server on a server without Microsoft Dynamics CRM installed* (on page 8) topic in the Installing Guide.
4. If you have additional organizations or if you are using a new SQL Server for the migration, you must import the organization databases to the new system. To do this, on the computer where Microsoft Dynamics CRM 2011 Server is installed and running, start Microsoft Dynamics CRM Deployment Manager, right-click **Organizations**, click **Import Organization**, and then select the newly restored Microsoft Dynamics CRM 4.0 *OrganizationName_MSCRM* database.
5. If customizations were made to .NET assemblies or configuration files, you must copy those customized files to the new system. By default, these files are located under the <drive>:\Program Files\Microsoft Dynamics CRM\Server\bin\assembly\ folder on the existing Microsoft Dynamics CRM 4.0 server.

Migrate from Microsoft Dynamics CRM 3.0 Server to Microsoft Dynamics CRM 2011 Server

In-place upgrade from versions of Microsoft Dynamics CRM 3.0 is not available. However, you can migrate your Microsoft Dynamics CRM 3.0 deployment to Microsoft Dynamics CRM 2011 by using a Microsoft Dynamics CRM 4.0 trial version as an interim step in the migration process.

To migrate your 32-bit version of Microsoft Dynamics CRM 3.0 Server to Microsoft Dynamics CRM 2011 Server, perform the following tasks.

Important

Microsoft Dynamics CRM 4.0 Server and Microsoft Dynamics CRM 2011 Server have different component requirements than Microsoft Dynamics CRM 3.0 Server. Therefore, you must make sure that your hardware and software environment will support the migration. For more information about the hardware and software requirements for Microsoft Dynamics CRM 4.0, see the Microsoft Dynamics CRM 4.0 Implementation Guide. For more information about Microsoft Dynamics CRM 2011 hardware and software requirements, see the System Requirements topic in the Planning Guide.

1. Upgrade to Microsoft Dynamics CRM 4.0 Server by downloading and installing the *Microsoft Dynamics CRM 4.0 90-day trial versions* (<http://go.microsoft.com/fwlink/?LinkID=153783>) available on the Microsoft Download Center. Or, you can migrate your Microsoft Dynamics CRM 3.0 organization to a trial 64-bit version of Microsoft Dynamics CRM 4.0.

Important

Trial versions of Microsoft Dynamics CRM 4.0 can be used within a 90-day period before you must enter a valid commercial product key to continue use.

To make sure the latest updates to the Setup program are applied that help ease upgrading to Microsoft Dynamics CRM 2011, we strongly recommend that you click **Get updates for Microsoft Dynamics CRM** during the installation or upgrade to Microsoft Dynamics CRM 4.0.

2. Migrate the newly installed Microsoft Dynamics CRM 4.0 trial version by following the steps in the previous topic. Or, if you migrated your Microsoft Dynamics CRM 3.0 organization to a 64-bit version of Microsoft Dynamics CRM 4.0, you can perform an in-place upgrade of Microsoft Dynamics CRM 2011 Server.
3. Install Microsoft Dynamics CRM Reporting Extensions.
4. Install additional components, such as Microsoft Dynamics CRM 2011 E-mail Router, as necessary.

Upgrade Microsoft Dynamics CRM Connector for SQL Server Reporting Services

In-place upgrade of the Microsoft Dynamics CRM 4.0 Connector for SQL Server Reporting Services is not supported. If Microsoft Dynamics CRM 4.0 Connector for SQL Server Reporting Services is already installed, you must first uninstall it and then run Microsoft Dynamics CRM Reporting Extensions Setup.

1. Uninstall Microsoft Dynamics CRM 4.0 Connector for SQL Server Reporting Services.
2. Meet all requirements as specified under the Planning Guide System Requirements and Required Components topic.
3. Upgrade from Microsoft Dynamics CRM 4.0 to Microsoft Dynamics CRM 2011.
4. At the computer where Microsoft Dynamics CRM 4.0 Connector for SQL Server Reporting Services was installed, log on to your domain as a user who has administrator-level privileges.
5. See the Readme file to review important information and determine the location of the Microsoft Dynamics CRM Reporting Extensions installation files.
6. In the SrsDataConnector folder, double-click **SetupSrsDataConnector.exe**.
7. Follow the instructions on the screen or see Install Microsoft Dynamics CRM Reporting Extensions in this guide.

After the upgrade

After Setup has upgraded the Microsoft Dynamics CRM Server 2011, perform the following tasks.

Post-upgrade steps for servers

➤ **For each of your Microsoft Dynamics CRM Server 2011 deployments, follow these steps:**

1. If you have additional servers, upgrade or uninstall and reinstall Microsoft Dynamics CRM on those servers as described in the "Upgrading multiple servers" section of this guide.
2. Install the Microsoft Dynamics CRM Reporting Extensions for SQL Server Reporting Services. If you are migrating to Microsoft Dynamics CRM 2011, you must install Microsoft Dynamics CRM Reporting Extensions for SQL Server Reporting Services before you can import and upgrade a Microsoft Dynamics CRM 4.0 organization.
3. Install the latest Microsoft Dynamics CRM 2011 Update Rollup package or server hotfixes.
4. In Microsoft SQL Server Reporting Services Report Manager, re-create any custom data sources under the *OrganizationName_MSCRM* folders.
5. Verify that the system jobs and workflows are running.
6. Although not required, we recommend that you register Microsoft Dynamics CRM. For information, see the topic Register Microsoft Dynamics CRM later in this section.

Verify intranet Web addresses for in-place or connect to existing deployment upgrades

During an in-place upgrade or connect to existing deployment upgrade, Microsoft Dynamics CRM Server Setup may overwrite the Web addresses (AD root domain) that exist in the Microsoft Dynamics CRM 4.0 deployment. The issue occurs when the first local computer that is running Microsoft Dynamics CRM 4.0 Server is upgraded. If the Web addresses are not using the name of the local computer, the change to the address may not be desired and can cause unexpected results.

To work around this potential issue, verify that the intranet Web addresses are correct. For more information about how to view or change the Web addresses, see the Deployment Manager Help.

This issue will not occur when you perform a migration upgrade. For more information about migration upgrades, see *Upgrade from Microsoft Dynamics CRM 4.0 Server 32-bit editions* (on page 17).

Post-upgrade steps for clients

To be compatible with Microsoft Dynamics CRM 2011 Server, Microsoft Dynamics CRM 4.0 for Outlook clients must be upgraded to Update Rollup 7 or later. However, to experience the new features that are available with Microsoft Dynamics CRM 2011 you must upgrade to Microsoft Dynamics CRM 2011 for Outlook.

➤ **To upgrade clients, follow these steps:**

1. If you use Microsoft Dynamics CRM for Outlook or Microsoft Dynamics CRM for Outlook with Offline Access, run Microsoft Dynamics CRM 2011 for Outlook Setup on every user's computer. To ease the upgrade use Microsoft System Center Configuration Manager 2007 or Microsoft Group Policy to push the upgrade to users. See the Planning Guide for information about how to deploy Microsoft Dynamics CRM 2011 for Outlook using these methods.
2. Verify that Microsoft Dynamics CRM for Outlook and Microsoft Dynamics CRM for Outlook with Offline Access have the latest updates.
3. Test the functionality from Outlook and from the Microsoft Dynamics CRM Web application.

For more information, see Upgrade Microsoft Dynamics CRM 4.0 for Outlook to Microsoft Dynamics CRM 4.0 for Outlook in this guide.

Troubleshooting installation and upgrade

This section describes how to troubleshoot installation and known issues.

Log files

Setup creates log files that can be reviewed and used for troubleshooting. By default, the location of the log files, where *User* is the account of the user who ran Setup, is as follows:

`SystemDrive:\Users\User\AppData\Roaming\Microsoft\MSCRM\Logs\`

Server installation and upgrade issues

This section describes how to troubleshoot Microsoft Dynamics CRM Server 2011 installation issues.

Timeout expired error message during organization upgrade

During an organization database upgrade, you may receive the error message:

InstallDatabaseAction failed. ---> System.Data.SqlClient.SqlException: Timeout expired. The timeout period elapsed prior to completion of the operation or the server is not responding.

To work around this issue, add the `OleDbTimeout` and the `ExtendedTimeout` registry subkeys to increase the time-out values. For more information, see *A time-out occurs when you import large customization files into Microsoft Dynamics CRM* (<http://go.microsoft.com/fwlink/?LinkID=197418>).

Clients cannot connect to Microsoft Dynamics CRM Web application

Clients may be unable to connect to the Microsoft Dynamics CRM Web application. This issue can occur when the following conditions are true:

- The Microsoft Dynamics CRM Web application is configured for a TCP port that is not the default port (80), such as 5555.
- Windows Firewall does not include an exception for the TCP port.

To resolve this issue, add the port as an exception in the firewall configuration on the server where Microsoft Dynamics CRM is installed.

Microsoft Dynamics CRM Server 2011 cannot connect to Microsoft SQL Server

This issue can occur when Windows Firewall does not include an exception for the TCP port used by Microsoft SQL Server. By default, the TCP port used by Microsoft SQL Server is 1433. For more information, see *Configuring the Windows Firewall to Allow SQL Server Access* (<http://go.microsoft.com/fwlink/?LinkID=197464>).

Troubleshooting WIF installation failures

To help resolve issues that may occur when you install Windows Identity Framework (WIF), start Event Viewer and locate the **Setup** folder under **Windows Logs**. Filter on the source **WUSA**.

Claims-based authentication issues

Verify the certificate that you are using is valid for the associated Web site. Open the certificate and view the name. A wildcard certificate (for example, *.contoso.com) can authenticate all sub-domains in the contoso.com domain. You can also use a Subject Alternative Names certificate or an individual certificate (for example, auth.domain.com:5555).

'Login failed for DomainName\ServerName\$" error message after Microsoft Dynamics CRM Server 2011 install, repair, or configure

You may receive this error message when you try to sign-in to Microsoft Dynamics CRM after you install, upgrade, repair, or configure Microsoft Dynamics CRM Server 2011.

This issue occurs when the following conditions are true:

- The server where you perform the installation, upgrade, repair, or configure action is located in a domain that is operating at a Windows Server 2003 domain functional level.
 - One or more Microsoft Dynamics CRM service accounts are configured to use Network Service.
- To work around this issue, restart the server where Microsoft Dynamics CRM Server 2011 is installed.

Install Microsoft Dynamics CRM Server 2011 on multiple computers

You can install Microsoft Dynamics CRM Server 2011 on multiple computers to balance the processing load across several servers. Deploying Microsoft Dynamics CRM Server 2011 in this manner can increase performance and availability.

Important

Installing the Microsoft Dynamics CRM Workgroup Server 2011 edition on multiple servers is not supported and is a violation of the license agreement.

Multiple-server configuration overview

Before getting started with load balancing, installation and configuration planning is needed. For more information, see the Microsoft Dynamics CRM 2011 Planning Guide.

The base configuration typically uses separate computers that run the components of a Microsoft Dynamics CRM deployment that includes Microsoft SQL Server and an instance of Windows Server functioning as an Active Directory domain controller. A multiple-server configuration of Microsoft Dynamics CRM has multiple computers that are running Microsoft Dynamics CRM that access a single server that is running SQL Server.

This topic describes the steps to install Microsoft Dynamics CRM in a two-node network load-balancing configuration where all Microsoft Dynamics CRM Server 2011 roles are installed on a single computer. This kind of deployment is called a Full Server installation. You can use similar steps to install a particular server group role, such as the Front End Server role group, or one or more specific server roles. When you install Microsoft Dynamics CRM, you have the following choices for load balancing the Microsoft Dynamics CRM Web application, where both servers in the network load-balancing (NLB) cluster must have the following server-group roles or individual server roles installed.

1. Full Server install.
2. Front End Server install.
3. Server role install (by using Microsoft Dynamics CRM Server Setup Wizard or command-line install with an XML configuration file). You will have to install at least the following two roles on the load-balanced servers in the cluster.
 - ▶ Web Application Server role). This Microsoft Dynamics CRM Server 2011 role is used to run the Web application components that are used to connect users to Microsoft Dynamics CRM data.
 - ▶ Organization Web Service role. This Microsoft Dynamics CRM Server 2011 role is used to run applications that use the methods described in the Microsoft Dynamics CRM SDK.

Important

If you decide to install only the Front End Server role group, you must install the Back End Server group role on another server in the Active Directory domain for Microsoft Dynamics CRM to function. Similarly, if you want to install only the required Web Application Server and Organization Web Service roles, you must install the remaining server roles on other servers in the Active Directory domain for Microsoft Dynamics CRM to function.

In this example, a two-node cluster will be set up by using two computers that are running Windows Server 2008. The server names are CRM01 and CRM02.

Step 1: Enable network load balancing

Enable NLB on the network and create a server cluster for servers CRM01 and CRM02. We recommend that you use the following port-range settings when you enable the load-balanced cluster.

- **Port range.** Leave the default range, which is from 0 to 65535.

- **Protocols.** Both
- **Affinity.** Single

For information about procedures for loading and administering NLB on Windows Server, see the Network Load Balancing Manager Help on the Windows Server computer. For information about how to configure NLB in Windows Server 2008, see *Network Load Balancing Deployment Guide* (<http://go.microsoft.com/fwlink/?LinkID=194401>).

Step 2: Configure Active Directory

Configure Active Directory by creating an account to run the **CRMAppPool** service and use a Service Principal Name (SPN). This is required when you run IIS 7.0 in a clustered or a network load-balanced environment. The SPN uniquely identifies an instance of a running service. Active Directory uses the SPN for mutual authentication of a service instance, which enables the service instance to correctly authenticate when a user attempts to access resources that are located on other domain-member computers. For more information, see the MSDN article *Service Principal Names* (<http://go.microsoft.com/fwlink/?linkid=120954>).

To create SPNs, you use ADSI Edit that is included with Windows Server. You can use this Microsoft Management Console (MMC) snap-in tool to enter SPN values for a specific computer or user account.

Important

If IIS is configured to use kernel mode authentication, you must configure IIS to use the Web application pool's identity for internal virtual directories used by Microsoft Dynamics CRM. You can do so by modifying the **windowsAuthentication** element for the default Web site on the Web site where Microsoft Dynamics CRM is installed. For details about the **windowsAuthentication** element, see the *IIS 7.0: windowsAuthentication Element (IIS Settings Schema)* (<http://go.microsoft.com/fwlink/?LinkID=202880>) MSDN article.

To configure useAppPoolCredentials using the ApplicationHost.config file open the ApplicationHost.config file in a text editor. By default, this file is located at %windir%\system32\inetsrv\config\.

For all folders under the Default Web Site location path, set the value of the WindowsAuthentication element and the useAppPoolCredentials attribute to true. For example:

```
<system.webServer>
  <security>
    <authentication>
      <windowsAuthentication enabled="true" useAppPoolCredentials="true" />
    </authentication>
  </security>
</system.webServer>
```

➤ To configure the SPN, follow these steps:

1. Open Active Directory Users and Computers.
2. Create a user account to run the CRMAppPool application pool in IIS. To do this, we recommend that you use a name that describes what the account will be used for, such as *CRMService*.

Important

This user account must be member of the Domain Users group.

3. Close Active Directory Users and Computers.
4. Click start, type *adsi edit*, and then press ENTER.
5. Expand the domain, expand the node that begins with **DC=**, and then expand **CN=Users**.
6. Right-click the user account that you created in the previous step, such as *CRMService*, and then click **Properties**.
7. In the Attribute list, scroll down, select **servicePrincipalName**, and then click **Edit**.

8. In the **Value to add** box, type *HTTP/CRMNLBName.FQDN* and then click **Add**. Where, *CRMNLBName*, is the NLB cluster name and *FQDN* is the fully qualified domain name. For example, the *CRMNLBName.FQDN* name might be *CRMNLBCluster.contoso.com*.

Important

Note this NLB cluster name. You must use this name in the following step when you create the NLB cluster and when you update the configuration database.

Tip

Use the `setspn` command line tool to determine if the SPN is already in use.

9. In the **Value to add** box, type *HTTP/CRMNLBName* and then click **Add**.
10. Click **OK** two times.
11. Close ADSI Edit.

Step 3: Install Microsoft Dynamics CRM servers

Each instance of Microsoft Dynamics CRM in a multi-server deployment must be installed one at a time. The following steps assume that an instance of a full-server installation of Microsoft Dynamics CRM will be deployed on a computer named *CRM01*, and a second instance will be installed on a computer named *CRM02*.

Microsoft Dynamics CRM Server 2011 is supported for multiple-server installations.

Installing Microsoft Dynamics CRM Workgroup Server 2011 on multiple servers is not supported and is a violation of the license agreement.

➤ Install the first instance Microsoft Dynamics CRM on *CRM01*:

1. Run Microsoft Dynamics CRM Setup on server *CRM01*. For step-by-step guidance, see the previous topics in this chapter.
2. On the Specify Deployment Options page, select the instance of SQL Server that will be used for the Microsoft Dynamics CRM databases. Then, select the **Create a new deployment** option. Click **Next** and continue Setup.
3. On the Specify Security Account page, select the domain user account (for example, *CRMService*) created previously.
4. Continue to run Setup until the installation is completed.

➤ Install the second instance Microsoft Dynamics CRM on *CRM02*:

1. Run Microsoft Dynamics CRM Setup on server *CRM02*.
2. On the Specify Deployment Options page, enter or select the name of the computer that is running SQL Server where the Microsoft Dynamics CRM databases are stored (from the installation of *CRM01*), and then click **Connect to, and if necessary, upgrade an existing deployment**. Click **Next**.
3. On the Specify Security Account page, select the domain user account (for example, *CRMService*) created previously.
4. Continue to run Setup until the installation is completed.

Step 4: Configure NLB for the deployment

After the Microsoft Dynamics CRM Server 2011 installations are complete, run Deployment Manager to configure NLB for the deployment.

➤ Verify or change the Web addresses

1. On the Microsoft Dynamics CRM server, start Deployment Manager.
2. In the console tree, right-click **Microsoft Dynamics CRM**, and then click **Properties**.
3. Click the **Web Address** tab and make sure that the virtual cluster name, such as *crmcluster:5555* appears.

Important

Depending on how you deployed the Microsoft Dynamics CRM Server 2011 role group or separate server role installation, and the configuration of each server in the NLB cluster, the Web Application Server, Organization Web Service, Discovery Web Service, or Deployment Web Service Web addresses may be different. For example, if you installed the Front End Server role group on a server in an NLB cluster that is named *crmcluster1* in the *contoso* domain but installed the Deployment Administration Server role group on a different server in a different NLB cluster such as *crmcluster2* in the same domain, the name of the Web Application Server, Organization Web Service, Discovery Web Service Web addresses will be different from the Deployment Web Service Web address.

For a Full Server role deployment, all Web addresses will use the same computer name or FQDN of the cluster. If you are using a TCP port other than 80 (non-secure HTTP) or 443 (secure HTTP or SSL), you must specify the port number by appending the FQDN name with *:5555*, where *5555* is the port number, such as *crmcluster:5555*.

➤ Set NLB for the deployment

In order to make Microsoft Dynamics CRM aware of the NLB cluster, you must select **The deployment uses an NLB** option on the deployment. To do this, follow these steps.

1. On the Microsoft Dynamics CRM server, start Deployment Manager.
2. In the console tree, right-click **Microsoft Dynamics CRM**, and then click **Properties**.
3. Click the **Web Address** tab and then click **Advanced**.
4. Select **The deployment uses an NLB**. Click **OK** and then close Deployment Manager.

Configure domain names for IFD

To configure Microsoft Dynamics CRM for IFD, you must start Deployment Manager and run the Configure Internet-facing Deployment Wizard to add or revise the domain values. Depending on how you deployed the Microsoft Dynamics CRM Server 2011 role group or separate server role installation, and the configuration of each server in the NLB cluster, the **Web Application Server Domain**, **Organization Web Service Domain**, and **Discovery Web Service Domain** values use the NLB virtual cluster domain name. For example, if the Web Application Server is installed on an Internet-facing NLB cluster that has the FQDN virtual name *crmcluster.contoso.com*, enter *contoso.com* as the **Web Application Server Domain** value.

For more information about how to configure internal Web address and external domain values, see the Deployment Manager Help.

Step 5: Verify and monitor the cluster installation

Verify that Microsoft Dynamics CRM client applications can connect to Microsoft Dynamics CRM by using the cluster name, such as *CRMNLBcluster*.

To monitor the cluster, you have the following options.

- **Network Load Balancing Manager**. Log entries are displayed in the bottom of Network Load Balancing Manager.
- **Event Viewer**. Entries are recorded in the System logs by using the NLB source.
- **Wlbs**. Run the **wlbs.exe query** or **wlbs.exe display** command at the command prompt to view information about the state of the cluster.
- **Windows Server 2008 Network Load Balancing Management Pack for Operations Manager 2007**. When your organization uses MOM to monitor and manage the servers in your organization, include the Windows Server 2008 Network Load Balancing Management Pack for Operations Manager 2007 on the cluster hosts.
 - ▶ *Microsoft Server Network Load Balancing Management Pack for Operations Manager 2007* (<http://go.microsoft.com/fwlink/?linkid=120957>)

Install Microsoft Dynamics CRM Server 2011 to use a Microsoft SQL Server cluster environment

You can install Microsoft Dynamics CRM Server 2011 so that it can use a clustered Microsoft SQL Server environment that uses Microsoft Cluster Service (MSCS).

Important

Failover clustering is not supported with Microsoft SQL Server 2008 Workgroup.

Base configuration

This topic describes the options that are available to configure Microsoft Dynamics CRM to use a clustered SQL Server environment. The base configuration for a Microsoft Dynamics CRM Server 2011 system is described previously in this guide. The instructions in this topic expand on the base configuration by installing Microsoft Dynamics CRM Server 2011 so that it has a connection to a cluster of computers that are running SQL Server.

The configuration described here involves a single deployment of Microsoft Dynamics CRM Server 2011 accessing a cluster of two computers that are each running an instance of Microsoft SQL Server 2008.

The typical Microsoft Dynamics CRM deployment creates and uses the following Microsoft Dynamics CRM-specific databases on SQL Server:

- **OrganizationName_MSCRM**. This is the organization database where Microsoft Dynamics CRM data is stored, such as all records and activities.
- **MSCRM_CONFIG**. This database contains Microsoft Dynamics CRM metadata, such as configuration and location information that is specific to each organization.

Option 1: Install a new Microsoft Dynamics CRM Server 2011 deployment

Follow these steps to install Microsoft Dynamics CRM Server 2011 that will use a SQL Server cluster.

Step 1: Create the SQL Server cluster

Using the SQL Server documentation for the appropriate SQL Server edition, install and configure SQL Server and create a SQL Server cluster. The basic steps include the following:

- Collecting the information that you must have to create the virtual server. This can include a cluster disk resource, IP addresses, network names, and the nodes available for the cluster.
- Performing SQL Server Setup. After the necessary information is entered, the Setup program installs a new instance of SQL Server on the local disk of each node in the cluster and installs the system databases on the shared disk that is specified as part of the cluster configuration. The SQL Server program files are installed on each cluster node. During the cluster configuration, a virtual server is created.

Note

Although you can install Microsoft Dynamics CRM Server 2011 to a SQL Server cluster that is configured for either active-active or active-passive clustering, the cluster will function in an active-passive manner.

For more information about SQL Server failover clustering, see *High Availability with SQL Server R2* (<http://go.microsoft.com/fwlink/?LinkID=194563>).

Step 2: Install Microsoft Dynamics CRM Server 2011

➤ Install Microsoft Dynamics CRM Server 2011 by using the procedures in the previous section and perform the following tasks during Setup:

1. On the Select SQL Server page, type the virtual server name that you specified when you created the SQL Server cluster.
2. On the same page, select the **Create a new deployment** option, and then complete Microsoft Dynamics CRM Server Setup.

Option 2: Rehome or configure an existing Microsoft Dynamics CRM Server 2011 deployment that connects to a SQL Server cluster that stores only the organization database

➤ To configure your existing Microsoft Dynamics CRM Server 2011 to use the SQL Server cluster that contains only the organization database, follow these steps:

1. Follow the procedure in the previous section to create the SQL Server cluster.
2. Back up the **MSCRM_CONFIG** and *OrganizationName_MSCRM* databases that are on the existing SQL Server.
3. Restore the *OrganizationName_MSCRM* database to the SQL Server cluster. For more information about how to restore databases, see *Backing Up and Restoring Databases in SQL Server* (<http://go.microsoft.com/fwlink/?linkid=100249>).
4. On the computer that is running the Deployment Tools server role, start Deployment Manager. To do this, click **Start**, point to **All Programs**, point to **Microsoft Dynamics CRM**, and then click **Deployment Manager**.
5. Expand the **Deployment Manager** node, and then click **Organizations**.
6. Right-click the organization, and then click **Disable**.

Warning

When you disable an organization, users will no longer be able to access Microsoft Dynamics CRM for that organization.

Click **Yes** to disable the organization.

7. In the list of organizations, right-click the organization, and then click **Edit Organization**.
8. In the Edit Organization Wizard, in the **SQL Server** box, type the virtual SQL Server name for the SQL Server cluster that you created earlier, and then click **Next**.
9. On the System Requirements page, after a successful diagnostics check, click **Next**, and then click **Apply**.
10. Click **Finish**.
11. Enable the organization. To do this, right-click the organization, and then click **Enable**.
12. Reset the IIS services on the computer that is running IIS where the Microsoft Dynamics CRM Server 2011 Web application is installed. To do this, click **Start**, click **Run**, type *iisreset* in the **Open** box, and then click **OK**.

Option 3: Rehome or configure an existing Microsoft Dynamics CRM Server 2011 deployment that connects to a SQL Server cluster that stores both the configuration and organization databases

Configure your existing Microsoft Dynamics CRM Server 2011 to use the SQL Server cluster that contains both the configuration and organization databases.

➤ To implement this option, follow these steps:

1. Follow the procedure in the previous section to create the SQL Server cluster.

Important

Before you complete the following steps, make sure that users are not connected to, or accessing, the Microsoft Dynamics CRM system. You can do this by disabling the organization.

2. Back up the **MSCRM_CONFIG** and *OrganizationName_MSCRM* databases that are on the existing SQL Server.
3. Restore the **MSCRM_CONFIG** and *OrganizationName_MSCRM* databases to the SQL Server cluster shared disk. For more information, see *Backing Up and Restoring Databases in SQL Server*.
4. On all nodes in the cluster, modify Microsoft Windows registry subkeys.

Warning

Serious problems might occur if you modify the registry incorrectly. These problems might require you to reinstall the operating system and Microsoft Dynamics CRM. We cannot guarantee that these problems can be resolved. Modify the registry at your own risk.

5. Update the configdb registry subkey on the computer that is running Microsoft Dynamics CRM Server 2011. To do this, follow these steps:
 - a. On the computer that is running the Microsoft Dynamics CRM Web application, click **Start**, click **Run**, type **regedit** in the Open box, and then click **OK**.
 - b. Locate the following registry subkey:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSCRM
 - c. Right-click **configdb**, and then click **Modify**.
 - d. In the Value data box, change the data source to the name of the new virtual SQL Server name, and then click **OK**. For example, the string value in the Value data box should resemble the following:
Data Source=NewSQLServer;Initial Catalog=MSCRM_CONFIG;Integrated Security=SSPI

Note

- If multiple Microsoft Dynamics CRM Server 2011 Roles are in your deployment, you must update the registry keys for all the server roles.
 - If you use the Microsoft Dynamics CRM Reporting Extensions and if you are not moving the Microsoft SQL Server Reporting Services server, you must update the configdb subkey on the computer on which the Microsoft Dynamics CRM Reporting Extensions is installed.
6. Configure Microsoft Dynamics CRM Server 2011 to connect with the new instance of SQL Server where the organization database is now located. To do this, follow these steps:
 - a. On the computer that is running the Microsoft Dynamics CRM Server 2011 Web application, start Deployment Manager. To do this, click **Start**, point to **All Programs**, point to Microsoft Dynamics CRM, and then click Deployment Manager.
 - b. Expand the Deployment Manager node, and then click **Organizations**.
 - c. Right-click the organization, and then click **Disable**. When you disable an organization, users will no longer be able to access Microsoft Dynamics CRM for that organization.
 - d. Click **Yes** to disable the organization.
 - e. In the list of organizations, right-click the organization, and then click **Edit Organization**.
 - f. In the Edit Organization Wizard, in the SQL Server box, type the virtual SQL Server name for the SQL Server cluster that you created earlier, and then click **Next**.
 - g. On the System Requirements page, after a successful diagnostics check, click **Next**, and then click **Apply**.
 - h. Click **Finish**.
 - i. Enable the organization. To do this, right-click the organization, and then click **Enable**.
 7. Reset the IIS services on the computer that is running IIS where the Microsoft Dynamics CRM Server 2011 Web application is installed. To do this, click **Start**, click **Run**, type *iisreset* in the Open box, and then click **OK**.

➤ Disable an organization

1. On the computer that is running the Microsoft Dynamics CRM Server 2011 Web application, start Deployment Manager. To do this, click **Start**, point to **All Programs**, point to Microsoft Dynamics CRM, and then click Deployment Manager.
2. Expand the Deployment Manager node, and then click **Organizations**.
3. Right-click the organization, and then click **Disable**. When you disable an organization, users will no longer be able to access Microsoft Dynamics CRM for that organization.
4. Click **Yes** to disable the organization.

Configure an organization database for SQL Server 2008 database mirroring

Microsoft Dynamics CRM uses two databases, configuration and organization. The configuration database contains configuration information that is specific to the Microsoft Dynamics CRM system. The organization database is used to store all the organization-specific data and the customer relationship data for the organization. Some versions of Microsoft Dynamics CRM let you create and use multiple organizations. Therefore, some deployments may have multiple organization databases in the Microsoft Dynamics CRM system.

To mirror a Microsoft Dynamics CRM organization database that can automatically fail over to another computer that is running Microsoft SQL Server, you configure the following three computers to establish the SQL Server database mirroring session:

- **Primary database computer.** This computer runs SQL Server where the Microsoft Dynamics CRM organization database is located. In this example, Microsoft Dynamics CRM is installed and running on the default instance of SQL Server. The computer name is *MSCRM_Primary*.
- **Mirrored database computer.** This computer, with a connection to *MSCRM_Primary*, is running SQL Server and it uses a different default instance. This computer must have a network connection to *MSCRM_Primary*. The computer name is *MSCRM_Mirror*.
- **Witness computer.** This computer runs SQL Server, or it can be a desktop system that is running SQL Server 2005 Express Edition. This computer must have a network connection to *MSCRM_Primary* and *MSCRM_Mirror*. The computer name is *MSCRM_Witness*.

Note

A computer that is running Microsoft SQL Server 2008 Workgroup edition can be a Witness. However, it cannot be a Primary or Mirror computer in a database-mirroring session.

Configure a Microsoft Dynamics CRM organization for database mirroring

Note

The previously mentioned computers (*MSCRM_Primary*, *MSCRM_Mirror*, and *MSCRM_Witness*) must all have a network connection and must be running an edition of SQL Server that supports database mirroring.

➤ To mirror the organization database, follow these steps:

1. On the instance of SQL Server that stores the primary database (*MSCRM_Primary*), start SQL Server Management Studio.
2. Expand **Databases**, right-click *OrganizationName_MSCRM*, where *OrganizationName* is the name of your organization, and then click **Properties**. Verify that the Microsoft Dynamics CRM organization database recovery model is set to Full. This is required for a database that will be mirrored.
 - a. To verify the recovery model, on the Database Properties window under **Select a page**, click **Options**. The recovery model appears in the **Recovery model** list. Select **Full**.
 - b. Click **OK** to close the Database Properties window.
3. Make a full backup of the organization database. For more information about how to do this, see the SQL Server Management Studio Help.
4. Restore the full backup of the primary (*MSCRM_Primary*) to the mirror instance (*MSCRM_Mirror*) by using the RESTORE WITH NORECOVERY option, which is required for database mirroring. For more information about how to do this, see the SQL Server Management Studio Help.
5. Configure database mirroring. To do this, start SQL Server Management Studio, connect to the instance of SQL Server where the primary database (*MSCRM_Primary*) is located, and then follow these steps:
 - a. Expand **Databases**, right-click the Microsoft Dynamics CRM organization database that you want to mirror, point to **Tasks**, and then click **Mirror**.
 - b. Click **Configure Security**, and then, on the new window, click **Next**.
 - c. On the Include Witness Server window, select **Yes**, and then click **Next**.
 - d. On the Choose Servers to Configure window, select **Witness server instance**, and then click **Next**.

- e. On the Principle Server Instance window, in the **Principal server instance** list, select the instance of SQL Server (MSCRM_Primary) where the Microsoft Dynamics CRM organization database is located. In addition, you can change the default settings for the listener port, encryption, and endpoint name. Click **Next**.
 - f. On the Mirror Server Instance window, in the **Mirror server instance** list, select the instance of SQL Server (MSCRM_Mirror) where you restored the Microsoft Dynamics CRM organization database in the previous step. You can change the default settings for the listener port, encryption, and endpoint name, if it is necessary. Click **Next**.
 - g. On the Witness Server Instance window, in the **Witness server instance** list, select the computer that you want to designate as the Witness (MSCRM_Witness). At this point, you can change the default settings for the listener port, encryption, and endpoint name. Click **Next**.
If you are connecting to an instance of SQL Server that is running Microsoft SQL Server 2008 Express Edition, verify that remote connections are supported. To do this, on the computer where Microsoft SQL Server 2008 Express Edition is installed start SQL Server Configuration Manager and make sure that the remote-connections feature is enabled.
 - h. On the Service Accounts window, enter the Active Directory service account for each instance. We recommend that you specify the same service account for all three partners in the mirroring session. Click **Next**.
 - i. Click **Finish**. The wizard runs through a list of verification checks. Upon completion, click **Start Mirroring**.
6. If you want to mirror the configuration database (MSCRM_CONFIG) you must complete similar steps to establish the mirror and update the SQL Server connection string in the registry. To do this, follow these steps.

Warning

Serious problems might occur if you modify the registry incorrectly by using Registry Editor or by using another method. These problems might require you to reinstall the operating system and Microsoft Dynamics CRM. We cannot guarantee that these problems can be resolved. Modify the registry at your own risk.

- a. On the computer that is running Internet Information Services (IIS), where the Microsoft Dynamics CRM Web application is installed, start Registry Editor and locate the following registry subkey:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSCRM
 - b. Right-click **configdb**, and then click **Modify**. Insert *Failover Partner=MSCRM_Mirror;* into the connection string, after the **DataSource** value. The complete connection string will appear similar to the following example, where MSCRM_Primary is the primary SQL Server\instance name and MSCRM_Mirror is the mirrored SQL Server\instance name:
Data Source=MSCRM_Primary\SQL1;Failover Partner=MSCRM_Mirror\SQL2;Initial Catalog=MSCRM_CONFIG;Integrated Security=SSPI
 - c. Click **OK**, and then close Registry Editor.
7. Create the SQL logins for the Microsoft Dynamics CRM security groups on the Mirror server (MSCRM_Mirror). To do this, follow these steps.
- a. On the SQL Server (MSCRM_Primary) start SQL Server Management Studio, and connect to the Primary database.
 - b. Expand **Databases**, expand the *OrganizationName_MSCRM* database where *OrganizationName* is the name of your organization, expand **Security**, and then double-click **Users**.
 - c. Copy and paste the names, including the domain name and the GUIDs, (the GUIDs are located at the end of the name) for the following groups:
 - PrivReportingGroup
 - ReportingGroup
 - SQLAccessGroup

To do this, right-click the SQL user name, click **Properties**, in the **User name** box, right-click the whole value, and then click **Copy**. Then, in a text editor such as Notepad, paste the contents. Repeat these steps for each group until you have the contents for all three groups.
 - d. In SQL Server Management Studio, connect to the SQL Server Mirror instance (MSCRM_Mirror).

- e. Expand **Databases**, expand **Security**, right-click **Logins**, and then click **New Login**.
 - f. Switch to the text editor in which the SQL users were previously pasted, and copy the contents of one of the groups.
 - g. Switch to the Login –New form that was opened in step e. In the **Login name** box, paste the contents into the box, and then click **OK**. The SQL user contents should resemble the following example.
 DomainName\SQLAccessGroup {859409f6-c4a5-4cb6-86f2-af264520ea10}
 - h. Repeat steps e through g to create SQL logins for the remaining groups.
8. Update the configuration database to specify the mirror. To do this, follow these steps.

Important

Back up the Microsoft Dynamics CRM configuration database (MSCRM_CONFIG) before you run these update statements.

- a. Run the following update statement against the configuration (MSCRM_CONFIG) database.

```
Update Organization set ConnectionString = 'Provider=SQLOLEDB;Data Source=MSCRM_Primary\SQL1;Failover Partner=MSCRM_Mirror\SQL2;Initial Catalog=Organization_MSCRM;Integrated Security=SSPI' where DatabaseName = 'Organization_MSCRM'
```

- Replace *MSCRM_Primary\SQL1* with the name of the Primary instance of SQL Server. If you are using the default instance, do not designate the instance such as *\SQL1*.
- Replace *MSCRM_Mirror\SQL2* with the name of the Mirrored instance SQL Server. If you are using the default instance, do not designate the instance such as *\SQL2*.
- Replace *Organization_MSCRM* with the name of the organization database.

- b. Run the following update statement against the configuration (MSCRM_CONFIG) database.

```
Update Organization set MirroredSQLServerName = 'MSCRM_Mirror\SQL2' where DatabaseName = 'Organization_MSCRM'
```

- Replace *MSCRM_Mirror\SQL2* with the name of the Mirrored instance of SQL Server. If you are using the default instance, do not designate the instance such as *\SQL2*.
- Replace *Organization_MSCRM* with the name of the organization database.

9. After you make these changes, reset IIS on the computer that is running Microsoft Dynamics CRM. To do this, click **Start**, and then click **Run**. In the **Open** box, type *iisreset*, and then click **OK**.

Monitor and test for failover

The Mirrored databases can fail over either manually or automatically.

➤ **To monitor and test the failover, follow these steps:**

1. Start SQL Server Management Studio, right-click the primary database, point to **Tasks**, and then click **Mirror**.
2. On the Database Properties window, you can monitor the status of the synchronization between the Primary and Mirrored database. To test the fail-over feature manually, click **Failover**. When failover occurs, SQL Server will switch the mirroring session roles between the Primary database and the Mirrored database to make the mirror the primary and the primary the mirror.

For more information about how to implement database mirroring, see *Data Mirroring Deployment* (<http://go.microsoft.com/fwlink/?LinkID=196601>).

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Microsoft Dynamics CRM E-mail Router Installation Instructions

The Microsoft Dynamics CRM E-mail Router is a software component that provides an interface between the Microsoft Dynamics CRM Server 2011 and an e-mail server. After the E-mail Router is installed, it transfers e-mail messages to the Microsoft Dynamics CRM system, and it sends outgoing e-mail messages that users created in the Microsoft Dynamics CRM system.

For information about how to install and configure the E-mail Router, see *Microsoft Dynamics CRM E-mail Router Installation Instructions* (<http://go.microsoft.com/fwlink/?LinkID=207976>).

Microsoft Dynamics CRM for Outlook Installation Instructions

Microsoft Dynamics CRM for Microsoft Office Outlook provides users with access to the same data through Outlook as the Microsoft Dynamics CRM Web client provides through a Web browser. Microsoft Dynamics CRM for Outlook is meant to be used by Microsoft Dynamics CRM users who need access to CRM data while they are using the familiar Outlook application.

For information about how to install and configure Microsoft Dynamics CRM for Outlook, see *Microsoft Dynamics CRM for Outlook Installation Instructions* (<http://go.microsoft.com/fwlink/?LinkID=207978>).

Language Pack Installation Instructions

The Microsoft Dynamics CRM 2011 Language Pack enables users to change the language of the user interface or Help that is displayed in the application. For example, your multinational organization might have standardized on an English user interface to simplify internal training and troubleshooting, but if you prefer to read Help in your native language of German, you can specify that Microsoft Dynamics CRM display Help in German.

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Overview -- Language Pack Installation

After installing and provisioning the Microsoft Dynamics CRM Language Pack, its capabilities and corresponding options are available from Microsoft Dynamics CRM client applications. Users do not start Microsoft Dynamics CRM Language Pack as a separate application.

Note

The Microsoft Dynamics CRM Language Pack installation software is separate from the Microsoft Dynamics CRM installation software, and is found in its own download or on its own installation disk. The Language Pack changes only the Microsoft Dynamics CRM user interface and Help.

Install and deploy a Language Pack

Follow the procedures in this section to install and deploy the Microsoft Dynamics CRM Language Pack.

Step1: Install the Language Pack in the deployment

If you have users who are running Microsoft Dynamics CRM for Microsoft Office Outlook, in addition to installing Language Pack on the computer running Microsoft Dynamics CRM Server 2011, you must also install the same Language Packs on the computer where Microsoft Dynamics CRM for Outlook is installed.

➤ To install a Language Pack in the deployment, follow these steps:

1. Log on to the computer where Microsoft Dynamics CRM Server 2011 or Microsoft Dynamics CRM for Outlook is installed.
2. Verify that you have Administrator privileges on the computer and either Full or Administrator privileges on Microsoft Dynamics CRM.
3. Where the Language Pack files are located, double-click the file **MUISetup_<loc_code>_<proc_type>.msi**,
where:
<loc_code> is the locale code for the Language Pack that you are installing. (For example, "1031" for German or "1041" for Japanese.)

<proc_type> specifies the type of processor the server is running. (For example, "amd64.")

4. On the **End User License Agreement** page, review the information and, if you accept the license agreement, click **I accept the terms in the license agreement**, and then click **Install**.

Setup copies the Language Pack files to the correct locations in the Microsoft Dynamics CRM deployment. By default, the Language Pack files are copied to *drive:\Program Files\Microsoft CRM\LangPacks\<loc_code>*, where <loc_code> is the locale code for the Language Pack that you are installing.

5. To complete the installation, click **Finish**.

Repeat the process for each Language Pack that you want to install.

Step 2: Provision the Language Pack in your Microsoft Dynamics CRM deployment

Before users can start using a Language Pack to display a language, the Language Pack must be provisioned in your Microsoft Dynamics CRM deployment.

➤ To provision the Language Packs in your deployment, follow these steps:

1. Start the Microsoft Dynamics CRM Web application.
2. Verify that you have either Full or Administrator privileges on Microsoft Dynamics CRM.
3. In the Navigation Pane, click **Settings**.
4. Under **Settings**, click **Administration**, and then click **Languages**.
The **Language Settings** dialog box opens. In it, are listed each Language Pack installed in your Microsoft Dynamics CRM deployment, with a check box to the left of each listed Language Pack.
5. For each Language Pack that you want to provision (enable), select the check box next to it. For each Language Pack that you want to unprovision (disable), clear the check box.
6. Click **Apply**.
7. Click **OK** on any confirmation dialog boxes that open.

Note

It may take several minutes for Microsoft Dynamics CRM to provision or unprovision the languages.

8. To close the **Language Settings** dialog box, click **Close**.

Step 3: Select the language to display the user interface and help

Each User can select the language to display in both the Microsoft Dynamics CRM Web client and Microsoft Dynamics CRM for Outlook applications.

➤ To select the language to display, follow these steps:

1. Open the **Set Personal Options** page, as follows:
 - ▶ If you are using Microsoft Dynamics CRM Web client, click the **File** tab, and then click **Options**.
 - ▶ If you are using Microsoft Dynamics CRM for Outlook, on the top menu bar, click **CRM**, and then click **Options**.
2. Click the **Languages** tab.
3. In the **User Interface Language** list, select the language in which you want to display Microsoft Dynamics CRM.
4. In the **Help Language** list, select the language in which you want to display Microsoft Dynamics CRM Help.
5. To save your changes and close the dialog box, click **OK**.

Note

In Microsoft Dynamics CRM for Outlook, the user language settings only apply to Microsoft Dynamics CRM for Outlook features, such as the user interface display of the **CRM** menu, and do not affect other areas of Microsoft Office Outlook. To be able to display all the Microsoft Dynamics CRM for Outlook user interface or Help in multiple languages, you must install one or more Office Language Packs. For more information about Office Language Packs, see the Microsoft Dynamics CRM for Outlook Help.

Upgrade and deploy a Language Pack

After you upgrade a Microsoft Dynamics CRM Server 2011 to Microsoft Dynamics CRM 2011 Server, you can then upgrade and provision Language Packs.

➤ To upgrade and provision a Language Pack:

1. On each computer that was upgraded to Microsoft Dynamics CRM 2011 Server, uninstall the Microsoft Dynamics CRM 4.0 Language Packs using the Windows Server uninstall function.
2. Reinstall and deploy each Language Pack, as described previously.

Language Pack installation issues

This section describes how to troubleshoot Language Pack installation issues.

You receive a "Setup could not install Language Pack Name" error message

This issue can occur when the Microsoft Dynamics CRM Server 2011 or Microsoft Dynamics CRM for Outlook applications are not installed on the computer before you run

MUISetup_<loc_code>_<proc_type>.msi to install a Language Pack. To resolve this issue, you must perform the following procedures:

- If you are installing the Language Pack for the Microsoft Dynamics CRM deployment, you must install the Language Pack on the computer where Microsoft Dynamics CRM Server 2011 is installed.
- If you are installing the Language Pack for Microsoft Dynamics CRM for Outlook, you must install the Language Pack on the computer where Microsoft Dynamics CRM for Outlook is installed.

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Uninstall, Repair, and Change Instructions

This section describes how to uninstall, repair, or change a Microsoft Dynamics CRM application. Uninstalling Microsoft Dynamics CRM and purging the computer system of all Microsoft Dynamics CRM data and system changes involves a series of automated and manual procedures. These procedures are the same whether the Microsoft Dynamics CRM installation involves one computer or several. These procedures also involve working in the following areas:

- Microsoft Dynamics CRM
- Internet Information Services (IIS)
- Microsoft SQL Server
- Microsoft SQL Server Reporting Services
- Active Directory

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Uninstall, change, or repair Microsoft Dynamics CRM Server 2011

To perform Microsoft Dynamics CRM Server 2011 maintenance, select from the following options that are available. Before selecting an option, you must start Programs and Features.

- Log on to the computer where the Microsoft Dynamics CRM application is installed. Then, click **Start**, type *Programs and Features*, and then click **Programs and Features** in the Programs list.
- **Uninstall**. Selecting this option will remove Microsoft Dynamics CRM Server 2011 from the computer. To do this go to **Programs and Features**, right-click Microsoft Dynamics CRM Server 2011, click **Uninstall/Change**, select **Uninstall** to remove Microsoft Dynamics CRM Server 2011, and then click **Uninstall**. Follow the instructions that are on the screen.

Important

The Microsoft Dynamics CRM uninstall process does not remove some components, such as the SQL Server databases, Active Directory groups, or the Microsoft Dynamics CRM Web site (when the Web site is not created by Setup). Those components must be removed manually.

- **Configure**. To add or remove one or more Microsoft Dynamics CRM server roles, right-click Microsoft Dynamics CRM Server 2011, click **Uninstall/Change**, select **Configure**, and then click **Next**. Follow the instructions that are on the screen to select or clear one or more server roles. For more information about Microsoft Dynamics CRM server roles, see "Server roles" in the Planning Guide.
- **Repair**. To repair a Microsoft Dynamics CRM Server 2011 installation, right-click Microsoft Dynamics CRM Server 2011, click **Uninstall/Change**, select **Repair**, and then click **Next**. Follow the instructions that are on the screen.

Note

Repairing a Microsoft Dynamics CRM Server 2011 installation reinstalls the program files. It has no effect on the databases. To recover from Microsoft Dynamics CRM database problems, you must restore the MSCRM_CONFIG and OrganizationName_MSCRM databases. For information about database backup and failure recovery, see "Backing up SQL Server, including Reporting Services" in the Microsoft Dynamics CRM 2011 Operating and Maintaining Guide.

Components not removed during a Microsoft Dynamics CRM Server 2011 uninstall

The following system components, although installed during Microsoft Dynamics CRM Server Setup, are not removed when you uninstall Microsoft Dynamics CRM Server 2011.

Windows role services:

- Web Server Role Services
 - ▶ Static Content
 - ▶ Default Document
 - ▶ Directory Browsing
 - ▶ HTTP Errors
 - ▶ ASP.NET
 - ▶ Microsoft .NET Framework Extensibility
 - ▶ ISAPI Extensions
 - ▶ ISAPI Filters
 - ▶ HTTP Logging
 - ▶ Request Monitor
 - ▶ Windows authentication
 - ▶ Request Filtering
 - ▶ Static Content Compression
 - ▶ Dynamic Content Compression
 - ▶ IIS Management Console
 - ▶ IIS 6 Metabase Compatibility
- File services role services:
 - ▶ Indexing Service

Windows features:

- Microsoft .NET Framework
- HTTP Activation
- Windows Powershell
- Windows Process Activation

Uninstall or repair Microsoft Dynamics CRM Reporting Extensions

To perform Microsoft Dynamics CRM Reporting Extensions maintenance, select from the following options that are available. Before selecting an option, you must start **Programs and Features**.

Log on to the computer where the Microsoft Dynamics CRM application is installed. Then, click **Start**, type *Programs and Features*, and then click **Programs and Features** in the Programs list.

Uninstall. To remove (uninstall) the CRM Reporting Extensions, go to **Programs and Features**, right-click **Microsoft Dynamics CRM Reporting Extensions**, click **Uninstall/Change**, select **Uninstall**, and then click **Uninstall**. Follow the instructions on the screen.

Repair. To repair the CRM Reporting Extensions, right-click **Microsoft Dynamics CRM Reporting Extensions**, click **Uninstall/Change**, select **Repair**, and then click **Next**. Follow the instructions on the screen.

Uninstall or repair Microsoft Dynamics CRM Report Authoring Extension

To perform Microsoft Dynamics CRM Report Authoring Extension maintenance, select from the following options. Before you select an option, you must start Programs and Features.

Log on to the computer where the Microsoft Dynamics CRM application is installed. Then, click **Start**, type *Programs and Features*, and then click **Programs and Features** in the Programs list.

Uninstall. To remove (uninstall) Microsoft Dynamics CRM Report Authoring Extension, go to Programs and Features, right-click **Microsoft Dynamics CRM Report Authoring Extension**, click **Uninstall/Change**, select **Uninstall**, and then click **Uninstall**. Follow the instructions on the screen.

Repair. To repair Microsoft Dynamics CRM Report Authoring Extension, right-click **Microsoft Dynamics CRM Report Authoring Extension**, click **Uninstall/Change**, select **Repair**, and then click **Next**. Follow the instructions on the screen.

Uninstall, change, or repair E-mail Router

To uninstall, change, or repair E-mail Router components, select from the following options. Before selecting an option, you must start Programs and Features.

Log on to the computer where the Microsoft Dynamics CRM application is installed. Then, click **Start**, type *Programs and Features*, and then click **Programs and Features** in the Programs list.

Uninstall.

1. On the **Uninstall or change a program** page, click **Microsoft Dynamics CRM E-mail Router** and then click **Uninstall/Change**. The **Microsoft Dynamics CRM E-mail Router Maintenance** wizard starts.
2. Select **Uninstall** and click **Uninstall**.
3. After the E-mail Router components have been uninstalled, click **Finish** on the **Microsoft Dynamics CRM E-mail Router setup completed** page.

Change. To add or remove E-mail Router or Rule Deployment Wizard, follow these steps.

1. On the **Uninstall or change a program** page, right-click **Microsoft Dynamics CRM E-mail Router** and then click **Uninstall/Change**. The **Microsoft Dynamics CRM E-mail Router Maintenance** wizard starts.
2. Select **Add/Remove Features** and click **Next**.
3. On the **Select Router Components** page, select **Microsoft Dynamics CRM E-mail Router Service** or **Rule Deployment Wizard**, or you can select both items.

Note

Clearing the **Microsoft Dynamics CRM E-mail Router Service** or **Rule Deployment Wizard** check box does not cause the application to be uninstalled.

1. Click **Next**. Follow the instructions on the screen.

Repair.

1. On the **Uninstall or change a program** page, click **Microsoft Dynamics CRM E-mail Router** and then click **Uninstall/Change**. The **Microsoft Dynamics CRM E-mail Router Maintenance** wizard starts.
2. Select **Repair** and click **Next**. Follow the instructions on the screen.

Notes

During Microsoft Dynamics CRM Server Setup, the computer where the E-mail Router is installed is added to the Active Directory PrivUserGroup security group. However, if the E-mail Router is uninstalled, the computer is not removed from the security group, and therefore has an unnecessary permission. If you uninstall the E-mail Router and decide not to reinstall it on the same computer, we recommend that you manually remove the computer from the PrivUserGroup security group.

In Microsoft Dynamics CRM 4.0, the following configuration files were not deleted from the *Drive:\Microsoft CRM Email\Service* directory: **EncryptionKey.xml**, **Microsoft.Crm.Tools.EmailAgent.Configuration.bin**, and **Microsoft.Crm.Tools.EmailAgent.xml**. In Microsoft Dynamics CRM 2011 these files are removed if you uninstall the E-mail Router.

Uninstall or repair Microsoft Dynamics CRM for Outlook

Note

If an uninstallation is not completed while you are logged on to the client computer as the user who originally installed the application, the offline database will remain attached to the instance of Microsoft SQL Server 2008 Express Edition. After the uninstallation is complete, you can manually detach the offline database.

Uninstall or Repair

To uninstall or repair Microsoft Dynamics CRM for Outlook, select from the following available options. Before you select an option, you must start Programs and Features.

Log on to the computer where the Microsoft Dynamics CRM application is installed. Then, click **Start**, type *Programs and Features*, and then click **Programs and Features** in the Programs list.

➤ To uninstall Microsoft Dynamics CRM for Outlook

1. On the **Uninstall or change a program** page, click **Microsoft Dynamics CRM 2011 for Microsoft Office Outlook** and then click **Uninstall/Change**. The **Microsoft Dynamics CRM 2011 for Outlook Setup** wizard starts.
2. On the **Choose the installation you want** page, click **Uninstall**.
3. When the wizard finishes, click **Close**.

Note

Uninstalling Microsoft Dynamics CRM for Outlook might require that you restart the computer.

➤ To repair Microsoft Dynamics CRM for Outlook

1. On the **Uninstall or change a program** page, click **Microsoft Dynamics CRM 2011 for Microsoft Office Outlook** and then click **Uninstall/Change**. The **Microsoft Dynamics CRM 2011 for Outlook Setup** wizard starts.
2. On the **Choose the installation you want** page, click **Repair**.
3. When the wizard finishes, click **Close**.

Note

To uninstall or repair Microsoft Dynamics CRM for Microsoft Office Outlook on previous versions of Microsoft Windows, follow steps similar to those in the preceding procedures: Open the **Microsoft Dynamics CRM 2011 for Outlook Setup** wizard and then select **Uninstall** or **Repair**.

Uninstall or repair a Language Pack

To perform Language Pack maintenance, select from the following options that are available. Before you select an option, you must start Programs and Features.

Log on to the computer where the Microsoft Dynamics CRM application is installed. Then, click **Start**, type *Programs and Features*, and then click **Programs and Features** in the Programs list.

Important

Rather than uninstall a Language Pack that is installed on the Microsoft Dynamics CRM server, you can disable a Language Pack in the organization. After you do this, users will no longer be able to see the Microsoft Dynamics CRM user interface and Help in the language that you disabled. Later, you can enable the Language Pack by clicking the language in the Language Settings list.

When a Language Pack is removed or disabled, users who have that Language Pack language selected on the **Personal Preferences** form will have to use the base language. For example, consider the following scenario. A Microsoft Dynamics CRM deployment has English as the base language, but the Spanish Language Pack was used in the organization. Then, when the system administrator disables (or uninstalls) the Spanish Language Pack, users who selected the user interface to be in Spanish will see it in English.

To disable a Language Pack, see the Microsoft Dynamics CRM Help.

Uninstall. Selecting this option will remove the selected Language Pack from the computer. If you uninstall a Language Pack, you must reinstall and then enable it before it is available to users again.

➤ **To uninstall a Language Pack**

1. Right-click the Language Pack, such as *Microsoft Dynamics CRM German Language Pack*, and then click **Uninstall**.
2. If other users are logged on to the computer, you will receive a warning message. Click **Continue** if you want to continue and remove the Language Pack.
3. Click **Yes** to confirm that you want to remove the Language Pack and follow the instructions that are on your screen.

Repair. To repair a damaged Language Pack installation, right-click Language Pack, click **Repair**, and then follow the instructions that are on your screen.

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Use the Command Prompt to Install Microsoft Dynamics CRM

You can install Microsoft Dynamics CRM, Microsoft Dynamics CRM Reporting Extensions, Microsoft Dynamics CRM for Microsoft Office Outlook, and the Microsoft Dynamics CRM E-mail Router from their respective installation disks or file download location by using the command prompt.

For more information see *Use the Command Prompt to Install Microsoft Dynamics CRM* (<http://go.microsoft.com/fwlink/?LinkID=207601>).

Post-Installation and Configuration Guidelines

This chapter describes several of the Microsoft Dynamics CRM components and tasks that the administrator should configure after installing the application. Because Microsoft Dynamics CRM has a rich feature and functionality set, this chapter is not meant to be an exhaustive resource used to configure any and all deployments. Instead, use this chapter as a guideline to determine what components to configure, based on your organization's needs.

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Make Microsoft Dynamics CRM client-to-server network communications more secure

With any network design, it is important to consider the security of your organization's client-to-server communications. When making necessary decisions that can help protect data, we recommend that you understand the following information about Microsoft Dynamics CRM network communication and about the technology options that are available to you that provide more secure data transmissions.

If you installed Microsoft Dynamics CRM or upgraded to Microsoft Dynamics CRM 2011 to an internally-facing Web site that is not already configured for HTTPS, Microsoft Dynamics CRM client-to-server communications are not encrypted. When using a Web site that supports only HTTP, information from Microsoft Dynamics CRM clients is transmitted in clear text and, therefore, possibly vulnerable to malicious intent, such as "man-in-the-middle" type attacks that could compromise content by adding scripts to perform harmful actions.

Configuring Microsoft Dynamics CRM for HTTPS

Configuring a site for HTTPS will cause a disruption in the Microsoft Dynamics CRM application so plan the configuration when it will result in minimal disruption to users. The high-level steps for configuring Microsoft Dynamics CRM for HTTPS are as follows:

1. In Microsoft Dynamics CRM Deployment Manager, disable the server where the Web Application Server, Organization Web Service, Discovery Web Service, and Deployment Web Service roles are running. If this is a Full Server deployment, all server roles are running on the same computer. For information about how to disable a server, see Microsoft Dynamics CRM Deployment Manager Help.
2. Configure the Web site where the Web Application Server role is installed to use HTTPS. For more information about how to do this, see Internet Information Services (IIS) Help.
3. Set the binding in Microsoft Dynamics CRM Deployment Manager. This is done on the **Web Address** tab of the **Properties** page for the deployment. For more information about how change the bindings see the "Microsoft Dynamics CRM deployment properties" topic in Microsoft Dynamics CRM Deployment Manager Help.
4. If you want to make other Microsoft Dynamics CRM services more secure and Microsoft Dynamics CRM is installed by using separate server roles, repeat the previous steps for the additional server roles.

Add or remove sample data

Sample data is available to help you become familiar with how Microsoft Dynamics CRM works. By using sample data, work with records and see how they relate to each other, how data displays in charts, and see what information is in reports.

Sample data can be added or removed from within the Microsoft Dynamics CRM application. For more information about sample data, see the "Manage Sample Data" topic in Microsoft Dynamics CRM Help.

Instructions for removing the Resource Center

The Microsoft Dynamics CRM Resource Center is a place in the application where users, administrators, and implementers will find information to help them use and configure Microsoft Dynamics CRM 2011. The Resource Center displays content hosted by Microsoft and is not displayed when users are offline.

If Microsoft Dynamics CRM users do not have access to the content on the Resource Center, it can be removed from the application.

➤ Remove the Resource Center from the application

1. Export the Site Map by using the Export Customizations feature.
2. Select one of the following options:
 - ▶ Export the Default solution.
 - ▶ Add the Site Map to a new or existing solution.
 - a. In the solution, click **Components**.
 - b. On the Actions toolbar, click **Add Existing** and then click **Site Map**.
 - c. Export the solution as an unmanaged solution.
3. Extract the files from the compressed .zip file.
4. Open the customizations.xml file by using a text editor such as Microsoft Visual Studio or Microsoft Notepad.
5. Locate the following node in the file:


```
/ImportExportXml/SiteMap/SiteMap/Area Id="ResourceCenter"
```
6. Comment the area by using <!-- and --> tags where the **Id** attribute is set to "ResourceCenter" as follows:

```

<!--<Area Id="ResourceCenter"
  ResourceId="Area_ResourceCenter"
  Icon="/_imgs/resourcecenter_24x24.gif"
  DescriptionResourceId="ResourceCenter_Area_Description">
  <Group Id="ResourceCenter">
    <SubArea Id="nav_lc_overview"
      ResourceId="Homepage_LearningOverview"

DescriptionResourceId="LearningOverview_SubArea_Description"
      Icon="/_imgs/ico_18_129.gif"
      Url="/resourcecenter/overview.aspx"
      AvailableOffline="false" />
    <SubArea Id="nav_lc_customization"
      ResourceId="Homepage_LearningCustomization"

DescriptionResourceId="LearningCustomization_SubArea_Description"
      Icon="/_imgs/area/18_settings.gif"
      Url="/resourcecenter/customization.aspx"
      AvailableOffline="false">
    <Privilege Privilege="CreateEntity" />
  </Group>
  </Area>
-->
```

```

    <Privilege Entity="solution"
        Privilege="Create" />
    <Privilege Privilege="ImportCustomization" />
  </SubArea>
</Group>
</Area>-->

```

Note

By commenting the Resource Center area you preserve the capability to restore it in the future by repeating this procedure and removing the comment tags.

7. Save your changes to the customizations.xml file.
8. Create a new compressed zip file using all the extracted solution files, including your edited customizations.xml.

Tip

In Windows Explorer, select all the files, then right-click, and in the context menu, click **Send To and Compressed (zipped) folder**.

9. Import the new solutions file.
 - a. In the Microsoft Dynamics CRM application Navigation Pane, click **Settings**, click **Customization**, and then click **Solutions**.
 - b. Click **Import**.
 - c. Click **Browse**, locate your modified solutions .zip file created in step 8, click **Next**, and then click **Import**.
 - d. When the import completes, click **Publish All Customizations**.
 - e. Click **Close** to close the **Import Solutions** dialog box.
10. Verify that the Resource Center area was removed.

The import process performs validations on the Site Map. However, it is still possible that some errors might occur. If errors occur, the default Site Map will be applied and an error message will be displayed. You must fix the errors in the Site Map and import it again.

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