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Microsoft®
Dynamics CRM
2011

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Microsoft Dynamics CRM 2011

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SAMS

800 East 96th Street, Indianapolis, Indiana 46240 USA

Microsoft Dynamics CRM 2011 Unleashed

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Dedications

As with any project of this type, there are many people that provide help and assistance in all shapes and forms that make up the end result that helps us and the book be successful. Our partnerships and relationships with the folks at Microsoft and other partners inspire us and drive us for continual improvement on a daily basis.

I would like to acknowledge the team at Webfortis for their interest, participation, and overall acceptance that committing to the community of Dynamics CRM users and administrators is the strongest way to differentiate.

—Marc

I want to especially thank Damian and Marc for their support and patience with the book.

—Raj

I want to especially thank Marc for all the patience and help he had while working on the book, as well as to the entire Webfortis team for all their effort on our projects. Finally, I want to dedicate this book to my family; without their support, I would never have had the time to write this book.

—Damian

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Introduction

Microsoft took the full three years between the release of its last version (version 4.0) of Customer Relationship Management (CRM) system to release this next version, CRM 2011, and it shows.

CRM 2011 brings to the table more than 500 new features—most, if not all, are outlined within this book. Although every one of those features is an improvement over the previous version, there are a few that really stand out and make this system a game changer with regard to functionality and competition. A few of our personal favorites are

- ▶ Native real-time charting and dashboarding in Chapter 21
- ▶ Improved user interface in Chapter 7
- ▶ Native SharePoint integration in Chapter 17
- ▶ Outlook 2010 Integration options in Chapter 13

Additionally, there is one feature that changes not only how this product can be used, but also is indicative of Microsoft's entire position with regard to computing: the dedication to cloud computing.

Microsoft announced at its World Partner Conference (WPC) in July 2010, that it was all in with regard to cloud computing. What this means is that the future is here and applications that previously required extensive infrastructure, IT staff, and multiple supporting applications are no longer necessary. Instead, Microsoft is leading the charge with applications such as CRM, SharePoint, Exchange, and even Office as hosted solutions that can be rented from Microsoft.

With Microsoft Dynamics CRM 2011 Online, the two biggest online limitations in its previous version have been removed: Custom reports can now be deployed in an online instance, and (drumroll) custom code can be deployed and executed on the Microsoft servers. Users benefit from this paradigm shift in that they can now work with solutions that can offer complex aggregate calculations at NO ADDITIONAL COST, (All custom code cycle time is absorbed by the monthly fee paid to Microsoft.) Combine this with the features of the Service Bus offered by Azure, and virtually any limitations that previously existed are nonexistent.

Of course, XRM still plays a major role toward the success of Microsoft Dynamics CRM. Renamed by Microsoft as *Extended CRM*, and carefully worded as not being a platform (so as to not be confused by its successful counterpart, SharePoint), XRM as a deployment model has been successfully deployed countless times. When asked to explain such concepts as XRM and SharePoint versus CRM, we often break them down as follows: XRM

has the capability to use the application for anything management: grants, vendors, employees, cows, and so on. When discussing SharePoint versus CRM, we describe them as complementary and refer to SharePoint as an excellent application for unstructured data (such as documents) and CRM as an ideal application for structured data, such as transaction activity (phone calls, invoices, touchpoints, and so forth). Overall, when these concepts are tied together—something now native with CRM 2011—organizations have the ability to manage and control virtually anything.

This book shows you not only how to work with and configure Microsoft Dynamics CRM 2011, but also includes complementary technologies such as

- ▶ SharePoint
- ▶ Azure
- ▶ SQL Server Reporting Services (SSRS)
- ▶ SQL Server
- ▶ Online versus On Premise options
- ▶ Visual Studio and .NET Framework 4.0

Additionally, we'll show you how to get the most from your CRM system. We will delve into how Microsoft Dynamics CRM works, explain why you should set up certain features, and explore advanced configuration and customization options.

To be clear, this book provides an excellent overview of 99% of the application; however, your mileage may vary depending on your requirements. The 1% is often the hardest, most complex, and even the most imaginative. After working exclusively with Microsoft Dynamics CRM for more than seven years, we still frequently see situations and requirements by organizations that we could never have imagined. Additionally, the power of the application continues to increase, delivering options that previously existed only with extensive programming and workarounds.

NOTE

If you believe that that we have omitted anything or would like to share the 1% that your requirements might fall into—write us! Our specific contact information is contained in the chapters preceding these pages, and we have set up an alias that will send any queries to all writers: crmunleashed@webfortis.com. Who knows? Perhaps your story and feedback will be featured in our next book on CRM.

You can use Microsoft Dynamics CRM 2011 to manage virtually anything. This book shows you how.

NOTE

The majority of this book was researched and written using the prereleased version of the Dynamics CRM 2011 software. Every attempt was made to update the contents based on the final version of the software that was released January 2011. However, there may be areas that will not perform as shown because of differences in beta and final software releases.

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CHAPTER 3

Requirements for CRM 2011

Microsoft Dynamics CRM 2011 is an application that leverages other Microsoft technology. As previously stated, most businesses usually have some of, if not all, the technology required for Microsoft Dynamics CRM 2011, and Microsoft readily admits that if you're not already on the Microsoft platform, the adoption of Microsoft Dynamics CRM for On Premise can be steep because the product requires many core components such as SQL Server, IIS, Active Directory, and so on.

The On Premise version of Microsoft Dynamics CRM is the version that requires the most amount of infrastructure. This is simply because you're dedicating server resources (if not several servers) to host the Microsoft Dynamics CRM application. The other versions (CRM Online and Partner Hosted) require only Outlook, the e-mail router, and/or Internet Explorer.

This chapter deals primarily with the requirements associated with the On Premise requirements. If you are going to be working with the CRM Online version, we recommend you skip to the "Client" section of this chapter because a majority of the material will not apply.

Server

You can deploy Microsoft Dynamics CRM several different ways when considering an On Premise deployment. These include choosing single-server versus distributed-server deployment and determining which version of Microsoft Dynamics CRM to run.

IN THIS CHAPTER

- ▶ Server
- ▶ Database
- ▶ SharePoint Integration
- ▶ E-mail Router
- ▶ Client
- ▶ Data Migration Manager
- ▶ Licensing
- ▶ Summary

- ▶ See Chapter 4, “Setting Up CRM 2011,” for more information about single-server versus distributed-server deployment.
-

CAUTION

CRM 2011 Server is supported only on an x64 based architecture computer.

The CRM 2011 Server version has the ability to install individual server roles by using the Microsoft Dynamics CRM Server Setup Wizard. Additionally, you can add a server role, and change or remove installed server roles by navigating to Programs and Features in the Control Panel.

Windows Server Operating system

The operating system requirements for the Microsoft Dynamics CRM 2011 Server are as follows:

- ▶ Windows Server 2008 Standard (x64 versions) SP2 or later version
- ▶ Windows Server 2008 Enterprise (x64 versions) SP2 or later version
- ▶ Windows Server 2008 Datacenter (x64 versions) SP2 or later version
- ▶ Windows Web Server 2008 (x64 versions) SP2 or later version
- ▶ Windows Small Business Server 2008 Premium x64 or later version
- ▶ Windows Small Business Server 2008 Standard x64 or later version

CAUTION

- ▶ Windows Server 2008 installed by using the Server Core installation option is not supported for installing and running Microsoft Dynamics CRM 2011 Server.
 - ▶ Windows Server 2008 for Itanium-Based Systems is not supported for installing and running Microsoft Dynamics CRM 2011 Server.
 - ▶ The Windows Small Business Server 2008 Standard edition does not include SQL Server. You must have a supported version of SQL Server available to install Microsoft Dynamics CRM on Windows Small Business Server 2008 Standard edition.
-

Active Directory modes

Active Directory is a Microsoft service that provides authentication and authorization for Windows-based users, computers, and services in a centralized location. It is a necessary component for access into Microsoft CRM 2011. The advantage of leveraging Active Directory is a single system sign-on process; application access can be granted without requiring multiple sign-ons.

The easiest way to think of this is that when users log on to the Windows network, they are essentially logging on to not only the network, but also to all network resources,

including printers, file shares, and applications that they have access to. Active Directory works by organizing network objects in a hierarchy.

A forest is the top level of Active Directory. Forests contain domains, and domains contain Organizational Units (OUs) (see Figure 3.1).

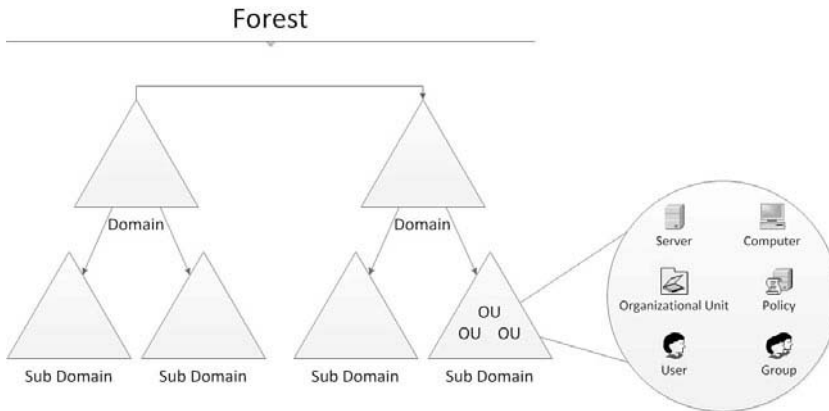


FIGURE 3.1 Graphical display of Active Directory forest, domain, and Organizational Unit.

All Active Directory forest modes (Windows 2003 Native and Windows 2008 forest mode) are supported for Microsoft CRM 2011. However, when installing to a Windows Server 2003 that is a domain member or domain controller in a domain, one of the following Active Directory service modes must be running:

- ▶ Windows 2000 Mixed
- ▶ Windows 2000 Native
- ▶ Windows Server 2003 Interim
- ▶ Windows Server 2003 Native
- ▶ Windows Server 2008 Interim
- ▶ Windows Server 2008 Native

Other Active Directory requirements include these:

- ▶ On a server-separated install (in which the CRM SQL Server database is on another computer), the Active Directory domain must contain both the Microsoft CRM 2011 and the SQL Server computer.
- ▶ The computer that is running Microsoft CRM 2011 must be on the same domain that has the accounts used to run Microsoft CRM 2011.
- ▶ A single OU must house all the Microsoft CRM 2011 security groups (UserGroup, PrivUserGroup, SQLAccessGroup, ReportingGroup, PrivReportingGroup). Note,

however, that the OU does not have to be in the same domain as the computer running Microsoft CRM 2011.

- ▶ A one-way trust must exist (in which the user domain trusts the Microsoft CRM 2011 domain) when accessing Microsoft CRM 2011 from another domain.
- ▶ For more information about Active Directory, trusts, and domains, go to <http://www.microsoft.com/technet/prodtechnol/windows2000serv/technologies/activedirectory/default.aspx>.

Active Directory is an integral part of Microsoft Dynamics CRM. From the beginning of Microsoft CRM (starting with the earliest versions), Active Directory was the centralized location for user management and security into the system. When users first attempt to log into the network, they are validating who they are against the information in Active Directory. When on the network, Microsoft CRM uses another internal security mechanism to determine record access. This division of security is known as *Authentication* and *Authorization*.

Authentication (or who the user is) is the process by which a user is verified by providing credentials. In the case of Active Directory, the credentials consist of a username, password, and Windows domain name. In the Windows and Microsoft CRM model, authentication is determined when a user logs on to the network. When a user attempts to access Microsoft CRM, he is not prompted for credentials because he has already been verified (see Figure 3.2).

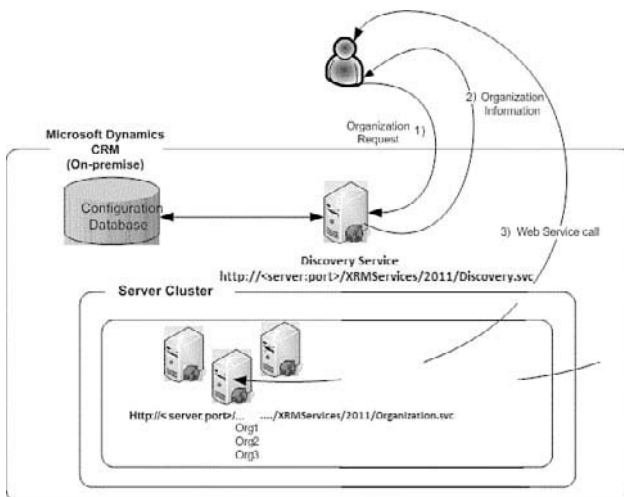


FIGURE 3.2 Active Directory and Microsoft CRM authentication.

Authorization (or what the user can do) is the process by which users are granted the rights to certain resources based on what security levels and permissions they have. For example,

a network administrator might have full access rights to the entire system, whereas a secretary might have very limited access rights.

Further, the previous example is specific to the network rights that users have; however, whatever Microsoft Dynamics CRM rights they might have are completely independent of their network rights. As such, the secretary previously mentioned, who has very limited access rights, might be a full Microsoft CRM Administrator and able to do virtually anything in the CRM system, whereas the network administrator might have read-only rights.

If it sounds confusing, it might be easier to think of it like this:

- ▶ Users need to be valid network users to be given access to Microsoft Dynamics CRM 2011.
- ▶ After being granted access to Microsoft CRM 2011, users need to be given a security role to determine what level of access they have to work within Microsoft CRM 2011.
- ▶ There is no inherent correlation between network permissions and Microsoft CRM 2011 permissions.

To explain further, just because users can log on to the network does not necessarily mean they have the rights or the capability to log on to Microsoft CRM 2011. The reason for this is that although Active Directory controls network and network resource access, users must also be set up in Microsoft CRM 2011 as valid users.

For example, if you had 85 people in your organization, but only the CEO has been set up in the Microsoft CRM 2011 as a valid user, only the CEO would be able to access Microsoft CRM 2011; other users would encounter the error shown in Figure 3.3.

The number of valid Microsoft CRM 2011 users that you can have is established by the version of Microsoft CRM 2011 that you purchase, as well as the particular licensing used (see the “Licensing” section of this chapter).

- ▶ The authorization process is further broken down within Microsoft Dynamics CRM 2011 as outlined in Chapter 12, “Settings and Configuration.”

Internet Information Services

Internet Information Services 7.0 (IIS) must be installed and running in Native mode before you install Microsoft Dynamics CRM Server.

TIP

When you install the Microsoft Dynamics CRM Server web application on a computer that is running IIS, Microsoft Dynamics CRM Server Setup will enable HTTP compression by default. If you use a different method to compress HTTP communications, you might want to disable this feature. To do this, start IIS Manager, right-click the Web Sites folder, click Properties, click the Service tab, and then clear the Compress Application Files and Compress Static Files check boxes.

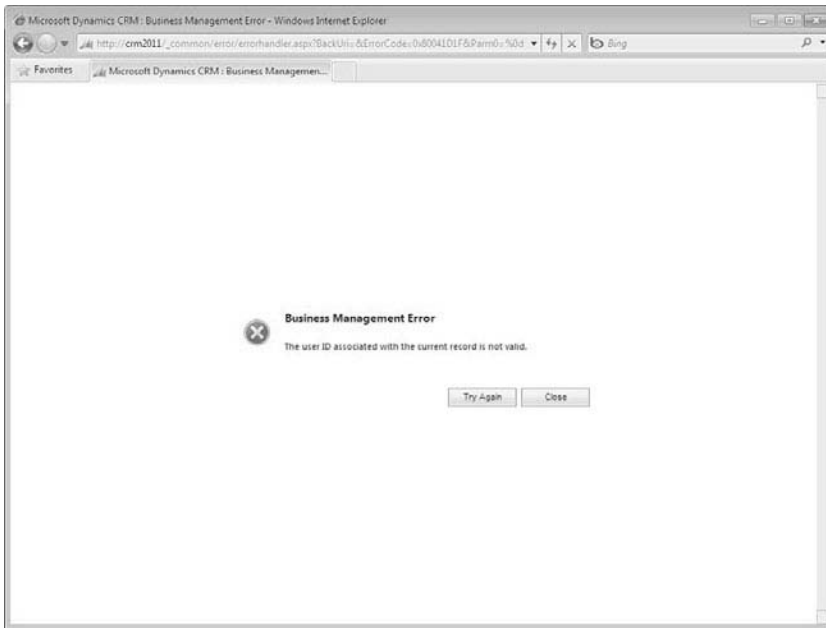


FIGURE 3.3 A valid network user but not added to Microsoft CRM.

Internet-Facing Deployment Requirements

The following items are required for Internet-facing deployments (IFD). This topic assumes you will be using Microsoft Windows 2008 Server as the claims-based authentication solution.

- ▶ Access to a Secure Token Services (STS) service, such as the STS called Active Directory Federation Services (ADFS) 2.0.
- ▶ The following must be available after you run Microsoft Dynamics CRM Server Setup and before configure IFD:
 - ▶ During configuration, you must configure the website to use SSL to configure the Microsoft Dynamics CRM Server Web application. Note that Microsoft Dynamics CRM Server Setup will not configure the website for SSL.
 - ▶ For this release of Microsoft Dynamics CRM Server, on the website where the Microsoft Dynamics CRM Server web application will be installed, verify that the Require SSL setting is disabled.
 - ▶ Access to the Windows 2008 Server federation metadata XML file from the computer where Microsoft Dynamics CRM Server Setup is run.
 - ▶ A valid encryption certificate used for SSL encryption by the Microsoft Dynamics CRM Server website located in the local computer certificate store where Microsoft Dynamics CRM Server will be installed. The certificate can be a wildcard encryption certificate.

ADFS 2.0 requires installation to the default website. Therefore, if you install Microsoft Dynamics CRM Server on a single-computer deployment, the Microsoft Dynamics CRM Server web application must be installed in a website other than the default website.

- ▶ See Chapter 22, “Forms Authentication” for more information about the IFD configurations.

Database

This section covers the following database components:

- ▶ SQL Server Editions
- ▶ SQL Server Reporting Services

SQL Server Editions

Any one of the following Microsoft SQL Server editions is required and must be installed, running, and available for Microsoft Dynamics CRM:

- ▶ Microsoft SQL Server 2008, Standard Edition, x64 SP1 or later version.
- ▶ Microsoft SQL Server 2008, Enterprise Edition, x64 SP1 or later version.
- ▶ Microsoft SQL Server 2008 Datacenter x64 SP1 or later version.
- ▶ Microsoft SQL Server 2008 Developer x64 SP1 or later version (for non-production environments only).
- ▶ Microsoft SQL Server 2008, Workgroup Web, Compact, or Express editions are not supported for running Microsoft Dynamics CRM.
- ▶ SQL Server 2000 and SQL Server 2005 editions and are not supported for this version of Microsoft Dynamics CRM.
- ▶ Running 64-bit SQL Server versions for Itanium (IA-64) systems in conjunction with Microsoft Dynamics CRM will receive commercially reasonable support. *Commercially reasonable support* is defined as all reasonable support efforts by Microsoft Customer Service and Support that do not require Microsoft Dynamics CRM code fixes.
- ▶ Microsoft Dynamics CRM Server supports a named instance of SQL Server when you add or create organization databases.

SQL Server Reporting Services

The following SQL Server Reporting Services editions are required and must be installed, running, and available for Microsoft Dynamics CRM Server:

- ▶ Microsoft SQL Server 2008, Standard Edition, x64 SP1 or later version
- ▶ Microsoft SQL Server 2008, Enterprise Edition, x64 SP1 or later version
- ▶ Microsoft SQL Server 2008 Datacenter x64 SP1 or later version
- ▶ Microsoft SQL Server 2008 Developer x64 SP1 or later version (for non-production environments only)

CAUTION

Microsoft SQL Server 2008, Workgroup, Web, Compact, or Express editions are not supported for running Microsoft Dynamics CRM.

32 bits versions of SQL Server are not supported either.

In addition, SQL Server 2000 Reporting Services and SQL Server 2005 Reporting Services editions are not supported with this version of Microsoft Dynamics CRM Server.

When a user who belongs to multiple organizations within a Microsoft Dynamics CRM deployment executes a report, the report executes correctly only if it is executed against that user's default organization.

TIP

To avoid problems that can arise from this, make sure that you use the same deployment of SQL Server Reporting Services for each organization in your Microsoft Dynamics CRM deployment.

Running 64-bit SQL Server versions for Itanium (IA-64) systems in conjunction with Microsoft Dynamics CRM will receive commercially reasonable support. Commercially reasonable support is defined as all reasonable support efforts by Microsoft Customer Service and Support that do not require Dynamics CRM code fixes.

Microsoft Dynamics CRM Reporting Extensions

The Microsoft Dynamics CRM Reporting Extensions is a component that connects the Microsoft Dynamics CRM computer to the SQL Server Reporting Services computer.

Microsoft Dynamics CRM Reporting Extensions Requirements

The Microsoft Dynamics CRM Connector for SQL Server Reporting Services has the following general requirements:

- ▶ You must complete Microsoft Dynamics CRM Server Setup before you run Microsoft Dynamics CRM Connector for SQL Server Reporting Services Setup.
- ▶ You can install and run only one instance of Microsoft Dynamics CRM Reporting Extensions on a computer that has SQL Server 2008 Reporting Services installed.

- ▶ Separate deployments of Microsoft Dynamics CRM cannot share one SQL Server Reporting Services server. However, a single deployment of Microsoft Dynamics CRM that has multiple organizations can use the same SQL Server Reporting Services server.
- ▶ See Chapter 11, “Reporting,” for more information about the Microsoft Dynamics CRM connector for SQL Server Reporting Services.

SharePoint Integration

Microsoft SharePoint is not required to install Microsoft Dynamics CRM 2011, and you can configure the SharePoint server settings after Microsoft Dynamics CRM Server Setup.

To enable Microsoft SharePoint integration, the following Microsoft SharePoint Server editions are required and must be installed, running, and at least one Microsoft SharePoint site collection configured and available for Microsoft Dynamics CRM Server:

- ▶ Microsoft SharePoint 2010 (all editions)
- ▶ Microsoft Office SharePoint Server (MOSS) 2007

To enable SharePoint functionality, go to the Settings area of the Microsoft Dynamics CRM Web application, and then select Document Management under System group (see Figure 3.4).

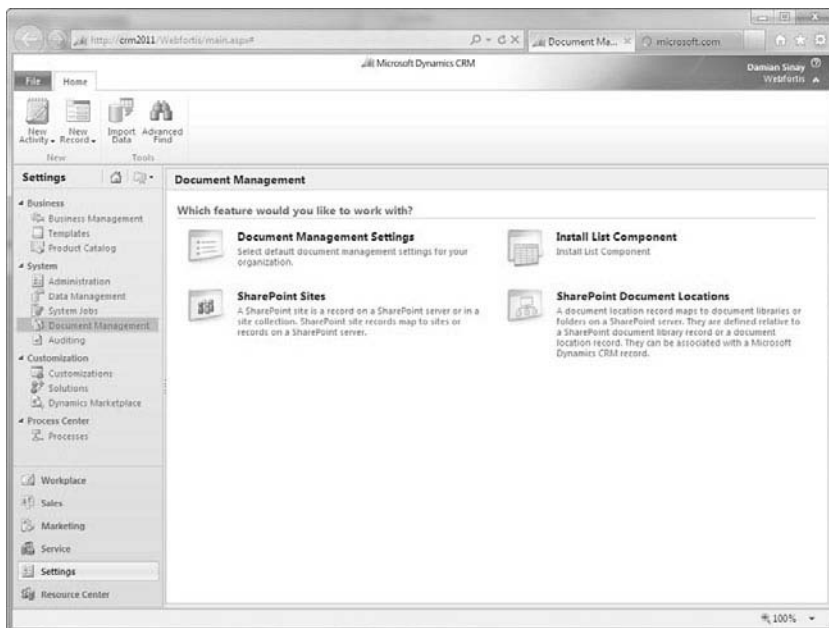


FIGURE 3.4 SharePoint configuration in CRM Web client.

► See Chapter 17, “SharePoint Integration” for more information about this configuration.

To have a better SharePoint experience, it is also recommended to install the Microsoft Dynamics CRM 2011 List Component for Microsoft SharePoint Server 2010 that can be downloaded from the Microsoft download website.

E-Mail Router

This section lists the software and application software requirements for Microsoft Dynamics CRM E-mail Router.

There are two separate installers for the Microsoft Dynamics CRM E-mail Router, one for 32 bits and another for 64 bits, notice you cannot install the 32 bits version on a 64-bit Windows operating system.

Microsoft Dynamics CRM E-mail Router Setup consists of two main components: the Microsoft Dynamics CRM E-mail Router Service and the Rule Deployment Wizard. The CRM E-mail Router Service installs the E-mail Router service and E-mail Router Configuration Manager. The E-mail Router Configuration Manager is used to configure the E-mail Router Service. The Rule Deployment Manager component deploys the rules that enables received e-mail messages to be tracked.

NOTE

Unless specified otherwise, E-mail Router supports the latest service pack (SP) for all required software components.

You can install the E-mail Router and Rule Deployment Manager on any computer that is running one of the following operating systems and has network access to both Microsoft Dynamics CRM and the e-mail server:

- Windows 7 (32 or 64 bits)
- Windows Server 2008 (all editions)
- Windows Server 2003 (all editions)
- Windows Vista (32 or 64 bits)
- Windows XP Pro and tablet in (32 or 64 bits)

CAUTION

Windows XP Media Center Edition is not supported for installing and running Microsoft Dynamics CRM E-mail Router or E-mail Router Configuration Manager.

In addition, running Microsoft Dynamics CRM E-mail Router and E-mail Router Configuration Manager (32-bit) is not supported on a Windows Server 64-bit operating system, in Windows-On-Windows (WOW) mode.

Exchange Server

Microsoft Exchange Server is required only if you want to use the E-mail Router to connect to an Exchange Server e-mail messaging system. To do this, the E-mail Router can be installed on any of the previously mentioned Windows or Windows Server operating systems that have a connection to the Exchange Server. The E-mail Router supports the following versions of Exchange Server:

- ▶ Exchange 2003 Standard or Enterprise Edition SP2
- ▶ Exchange Server 2007 Standard or Enterprise Edition
- ▶ Exchange Online
- ▶ Exchange Server 2010 Edition or Enterprise Edition

NOTE

Although Microsoft Exchange 2000 Server editions are not supported with these versions of Microsoft Dynamics CRM E-mail Router and Rule Deployment Manager, there is no reason why you couldn't use Exchange 2000 with POP3 access and configure the e-mail router to use native POP3 functionality.

If missing, E-mail Router Setup installs the .NET Framework 4.0 on the computer where you install the E-mail Router.

The Rule Deployment Wizard component must be installed on a computer that is running any of the previously mentioned Windows or Windows Server operating systems and has the Microsoft Exchange Server Messaging API (MAPI) client runtime libraries installed.

- ▶ See MAPI client runtime libraries on the Microsoft Download Center at <http://go.microsoft.com/fwlink/?linkid=78805>.
-

POP3/SMTP

POP3-compliant e-mail systems are supported for incoming e-mail message routing. SMTP and Exchange Web Services through Exchange Online are the only transport protocol supported for outgoing e-mail message routing.

NOTE

When you use the Forward Mailbox option on the User form, the POP3 e-mail server must provide support where an e-mail message can be sent as an attachment to another e-mail message.

If you install the Microsoft Dynamics CRM E-mail Router to connect to a POP3-compliant or SMTP server, the following standards are required:

- ▶ POP3: RFC 1939
- ▶ SMTP: RFC 2821 and 2822

Client

You can access Microsoft CRM 2011 in two different ways: by using Microsoft Internet Explorer or by using Microsoft Office Outlook.

Microsoft CRM Client for Internet Explorer

When using the Microsoft CRM Client for Internet Explorer, only Internet Explorer is required. This client is the recommended option when one of the following situations occurs:

- ▶ Remote and/or offsite access is necessary.
- ▶ Support staff doesn't necessarily need Office.
- ▶ A thin client solution is desired.

CAUTION

Note that only Microsoft Internet Explorer can be used as a Microsoft CRM Client, and other browsers, such as Firefox and Opera, are not supported. Although not supported, it is possible to use browsers other than Internet Explorer as a Microsoft CRM client if you enable their IE compatibility functions.

The following versions of Internet Explorer are required:

- ▶ Internet Explorer 7
- ▶ Internet Explorer 8
- ▶ Internet Explorer 9 or later

When using the Microsoft CRM Client for Internet Explorer, the following operating systems are supported:

- ▶ Windows 7 (both 64-bit and 32-bit versions)
- ▶ Windows Vista (both 64-bit and 32-bit versions)
- ▶ Windows XP Professional SP2 or SP3
- ▶ Windows XP Tablet PC Edition SP2 or SP3
- ▶ Windows XP Professional x64 Edition

To use Microsoft Dynamics CRM Office integration features, such as Export to Excel and Mail Merge, you must have one of the following installed on the computer that is running the Microsoft Dynamics CRM Web client:

- ▶ Microsoft Office 2003 with SP3
- ▶ Microsoft Office 2007 system
- ▶ Microsoft Office 2010

CAUTION

Microsoft Windows 2000 editions are not supported for installing and running the Microsoft Dynamics CRM Web client.



Microsoft CRM Office Client for Outlook

With Outlook, the Microsoft CRM 2011 client is installed directly into Outlook and can be accessed by simply navigating to the Microsoft CRM organization name node (see Figure 3.5).

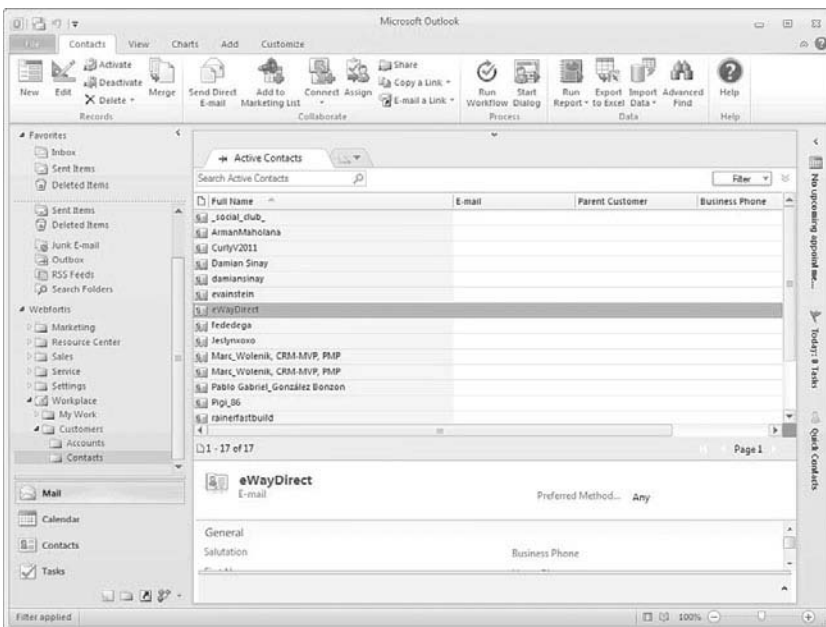


FIGURE 3.5 Microsoft Outlook with Microsoft CRM.

The Microsoft CRM Outlook client comes in two versions, 32 bits and 64 bits. The same client can also run in two modes (online or offline) and can now connects to more than one CRM organization as well as to any Microsoft Dynamics CRM Online organization.

- ▶ The Outlook client can be either download from <http://downloads.microsoft.com> or from the CRM Web interface where users will be suggested to download the Outlook client, as seen in Figure 3.6.

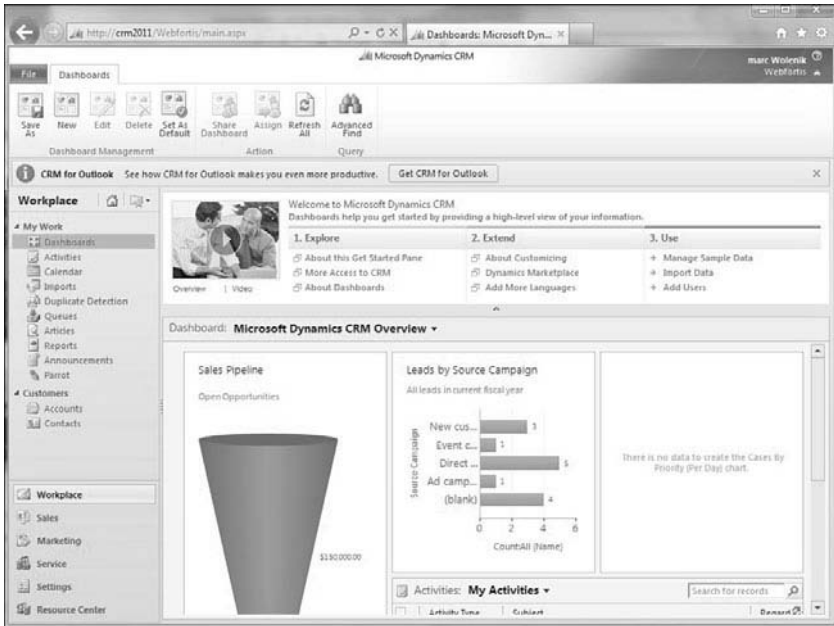


FIGURE 3.6 Microsoft Outlook client download suggestion from Web client.

Notice when the client is downloaded from the web interface only the specific version of the CRM type (online or on-premise) you are running will be downloaded.

On a standard installation online the online access is installed, to install the offline access type, you need to click the Options menu when the Setup Wizard ask for installation type (see Figure 3.7).

Although both features are similar, the Offline Access type has the capability to go offline and enables users to work with CRM data while not connected to the Microsoft CRM server. The offline capabilities are available by clicking the Go Offline button on the CRM tab in the main Outlook ribbon (see Figure 3.8).

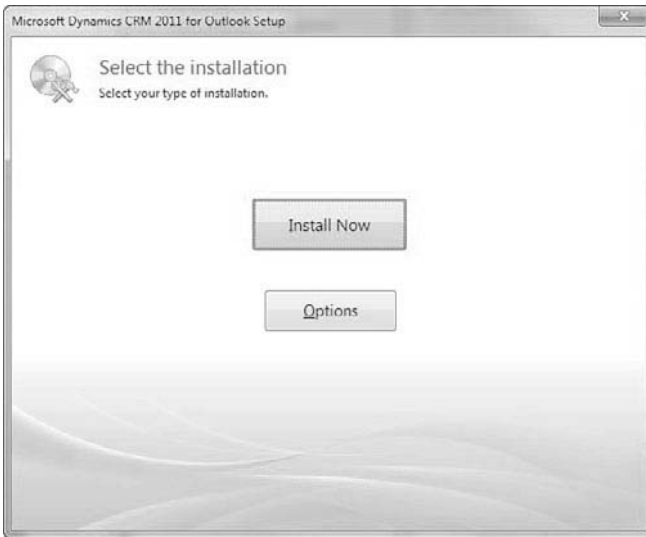


FIGURE 3.7 Microsoft Outlook client installation types.

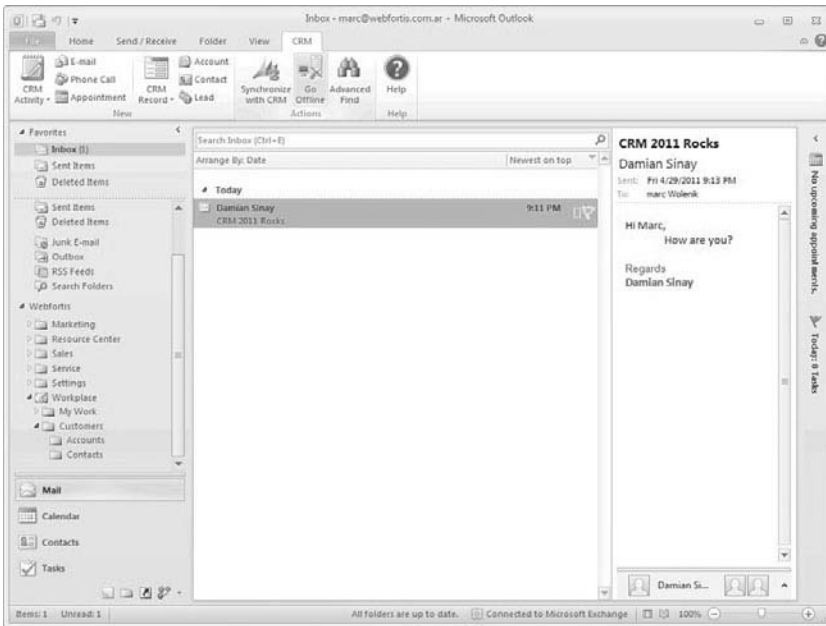


FIGURE 3.8 Microsoft CRM Outlook client while online.

When users have completed their offline tasks and return to the Microsoft CRM 2011 Server, they can click the Go Online button (refer to Figure 3.8), and a synchronization process checks for updated data on both the Microsoft CRM server and the Microsoft CRM Outlook client (see Figure 3.9).

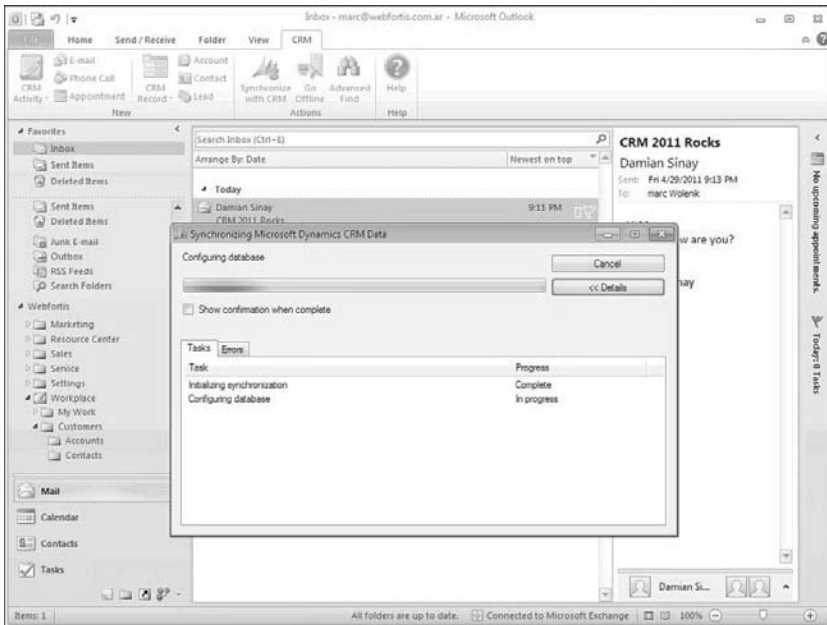


FIGURE 3.9 Microsoft CRM Outlook client synchronizing to go offline.

- ▶ Microsoft SQL Server 2008 Express Edition (CRM)
- ▶ Microsoft Report Viewer Redistributable 2010

Finally, it should be noted that the Offline Access Client mode does not require installation on a laptop. If you choose to install the Offline Access Client mode on your desktop, it will have the same functionality as the desktop client, but it will install the required components outlined earlier. There are not too many reasons for doing this, however, other than testing and development purposes, because it is unlikely that you'll be taking your desktop offline.

- ▶ For more information related to the differences in clients, refer to Chapter 16, "Configuration and Customization Tools."

Regardless of which Microsoft CRM client is used, the following operating systems are required for the Microsoft CRM Office client for Outlook:

- ▶ Windows 7 (both 64-bit and 32-bit versions)
- ▶ Windows Vista (both 64-bit and 32-bit versions)

- ▶ Windows XP Professional and Tablet editions with SP3
- ▶ Windows Server 2008 and Windows Server 2003 when running with Remote Desktop Services (formerly Terminal Services)

CAUTION

Windows XP Media Center Edition is not supported for installing and running Microsoft Dynamics CRM for Outlook.

6

In addition, the following components must be installed (and running) before you attempt a Microsoft CRM Office client for Outlook installation:

- ▶ Microsoft Office 2003 with SP3 (32-bit version)
- ▶ Microsoft Office 2007 (32-bit version)
- ▶ Microsoft Office 2010 (32-or 64-bit versions)

The following components are required. However, the installer automatically downloads and installs them as part of the installation process:

- ▶ SQL 2008 Express Edition (Offline Access Client mode only)
- ▶ .NET Framework 4.0
- ▶ Windows Installer (MSI) 4.5.
- ▶ MSXML 4.0
- ▶ Microsoft Visual C++ Redistributable
- ▶ Microsoft Report Viewer Redistributable 2010
- ▶ Microsoft Application Error Reporting
- ▶ Windows Identity Framework (WIF)

Finally, the Outlook client (either version) cannot be installed on the same server that has Exchange Server on it.

Licensing

With the different versions now available for Microsoft CRM 2011, customers have greater choice for licensing.

The licensing model for Microsoft CRM 2011 has been changed to use only one license key for the version, the server, and Client Access Licenses (CALs). This is a significant improvement over earlier versions that required separate licenses for each.

The Microsoft CRM versions, supported operating systems, and licensing are broken down in Table 3.1.

TABLE 3.1 Summary of Microsoft CRM Versions

Microsoft CRM Version	Supported Operating Systems	Users	Organizations	Computers
Workgroup Edition	<ul style="list-style-type: none"> • Microsoft Windows Server 2008 • Microsoft Windows Server 2003 (any of the previously listed supported versions) • Microsoft Windows Small Business Server 2008 R2 Enterprise Edition 	Five or fewer	Single organization	Single computer
Server Edition	Any of the previously listed supported operating	No user limit	Multiple organizations	Multiple computers

To manage licenses in Microsoft CRM 2011, the Deployment Manager is used on the server. From the Deployment Manager, you can view and upgrade licenses by going to the License tab in the deployment properties dialog (see Figure 3.10).



FIGURE 3.10 Microsoft Dynamics CRM Deployment Manager.

Microsoft CRM 2011 uses named licenses (or user CALs) as well as machine licenses (or device CALs) as its licensing model. Named licenses require that every user who accesses the Microsoft CRM 2011 must have a license. If that user leaves the company or no longer needs to use the CRM, the license can be transferred to another individual; however, the previous individual then no longer has access to Microsoft CRM 2011. Machine licenses allow a single computer to be licensed to Microsoft CRM 2011, and multiple users can use the same machine provided they aren't accessing it simultaneously. This is a significant improvement with regard to licensing when you consider call centers or similar organizations that operate around the clock. Named and Machine CALs can be mixed in a deployment.

Two different kinds of Microsoft CALs are available with Microsoft CRM 2011:

- ▶ **Full**—Full system functionality is granted to a user with this type of license. These users have full system access and full permission to modify records, limited only by whatever security role and privileges might be set for them.
- ▶ **Limited-use**—This CAL is a read-only CAL and comes in two options: Administrative or Read-only. With this license, users have the ability to view all areas and records in Microsoft CRM 2011. However, they cannot make any changes. The Administrative version gives users the ability to modify records only in the Settings area.

NOTE

The licensing differences apply only when Microsoft CRM 2011 is accessed via the web client. To use the Outlook client, you must have the Full CAL.

Microsoft makes CRM licensing available in the following different ways:

- ▶ Retail
- ▶ Volume

You can purchase retail licensing from any vendor that sells software.

Volume licensing is a method by which Microsoft makes licenses available based on the following criteria:

- ▶ Size of the purchasing organization
- ▶ Type of licensing desired
- ▶ Licensing term desired
- ▶ Payment options

When purchasing licenses through volume licensing, customers also can add Software Assurance (SA). SA enables customers to upgrade their software if Microsoft releases a newer version within a certain timeframe. Customers then can purchase software and not worry about it being obsolete and/or having to repurchase again when a new version comes out.

Volume licensing is broken down into the following four methods:

- ▶ **Open License**—Organizations that Microsoft considers small or midsized (usually with fewer than 250 computers) have the option to purchase licensing and receive benefits such as discounts, Software Assurance (mentioned previously), and easy deployment and management. The only restrictions on open licensing are that a minimum of five licenses must be purchased at a time, and payment is expected at the time of the transaction. These specific licensing options are available with Open License:
 - ▶ Open Value
 - ▶ Open Business
 - ▶ Open Volume

Each option has different advantages, depending largely on your business needs.

- ▶ To learn more about these options, go to www.microsoft.com/licensing/programs/open/overview.mspx.

-
- ▶ **Select License**—Organizations have the option to create a payment plan and are given discounts based on the amount of software ordered. Generally, the Select License option is reserved for organizations that have more than 250 computers.
 - ▶ **Enterprise Agreement**—Enterprise Agreement licensing is similar to the Select License option, but there are more significant discounts (usually reserved for larger orders).
 - ▶ **Enterprise Subscription Agreement**—This is a subscription-based model similar to the Enterprise Agreement option. However, because the software is not purchased, it offers discounts at a greater rate. Again, this option is usually reserved for organizations with more than 250 computers.

Although you can purchase the Microsoft CRM 2011 licenses via retail methods, we recommend purchasing licensing through volume licensing rather than retail if possible.

If you are a developer or an ISV, or if you are interested in enhancing or working with some of the features of Microsoft CRM 2011, you might want to consider acquiring an MSDN license, which includes a copy of CRM for development purposes.

- ▶ You can find more information about the MSDN program at www.microsoft.com/msdn.
-

Upgrading

Existing Microsoft Dynamics CRM 4.0 customers who would like to upgrade to 2011 can select whether they want to convert their named/user CALs to either a user or device CAL. Additionally, customers that have Microsoft Dynamics 2011 Professional Edition can upgrade their server and external connector licenses to Microsoft Dynamics CRM 2011 Professional version.

The upgrade path for Microsoft Dynamics CRM 4.0 Workgroup is unavailable at time of press, so be sure to check the Microsoft website for more information at www.microsoft.com/dynamics.

External Connector Licensing

A special license known as the *External Connector License* is required when you want to work directly with the data contained in your Microsoft Dynamics CRM database for any purpose. This is common when organizations want to extend functionality of case creation to their external customer facing websites, for example. In this scenario, a user could go to the organizations website, log in, and create a case directly in the website. The information would then be processed within Microsoft Dynamics CRM as a new case and assigned to either a support queue or user. Because this type of functionality requires us to touch Microsoft Dynamics CRM data, we need one an external connector license. This type of license has changed on this version of CRM 2011 and has the following limitations:

- ▶ Read only access to entities, activities, and custom entities and activities.
- ▶ Data privileges to create entity and custom entity records.
- ▶ Data privileges to append to, and update entity and custom entity records.
- ▶ No delete, share, and assign privileges are supported.

Basically the connector allows you to do most of the operations you want with the database, including reading, writing, but not deleting. The read-only connector enables you to display only information from the database and not update it in any fashion. The latter would be helpful if you wanted to share information with your organization or external partners relating to Microsoft Dynamics CRM data, such as upcoming sales and/or caseloads.

Either of these licenses is available with the CRM 2011 Server on-premise; however, neither is available with the Workgroup Server 2011 edition. If you are working with the Workgroup edition and want to use a connector for whatever reason, you must upgrade to the CRM 2011 Server version.

Windows Users

Note that Microsoft Windows has separate CAL requirements and, hence, can place restrictions on Microsoft CRM users. A good example of this is the 75-user limit on Windows Small Business Servers. The Professional Edition of Microsoft CRM 2011 supports an unlim-

ited number of users, but each user must be listed in Active Directory. Active Directory in SBS supports only 75 users, so you can have only 75 users in Microsoft CRM 2011.

Carefully consider this when planning the infrastructure.

Summary

There are several different configuration options for both the Microsoft Dynamics CRM server and its clients.

When working with an On Premise version of Microsoft Dynamics CRM, be sure that all the components listed previously are installed and correctly configured.

Finally, the related licensing options have been greatly improved, as well as the ability for customers to upgrade.

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