

Hardware and Software Requirements

The hardware and software requirements discussed in this section are provided as general requirements. There are many factors that must be considered that can affect these requirements, including:

- Number of servers involved and how they are configured
- Dependency of Microsoft® CRM on Microsoft SQL Server™ 2000 or Microsoft SQL Server 2005
- Number of users the Microsoft CRM implementation will support
- Integration of Microsoft CRM with the Microsoft Exchange servers
- Performance of your servers and the local area network
- Whether or not you already have Microsoft SQL Server Reporting Services installed.

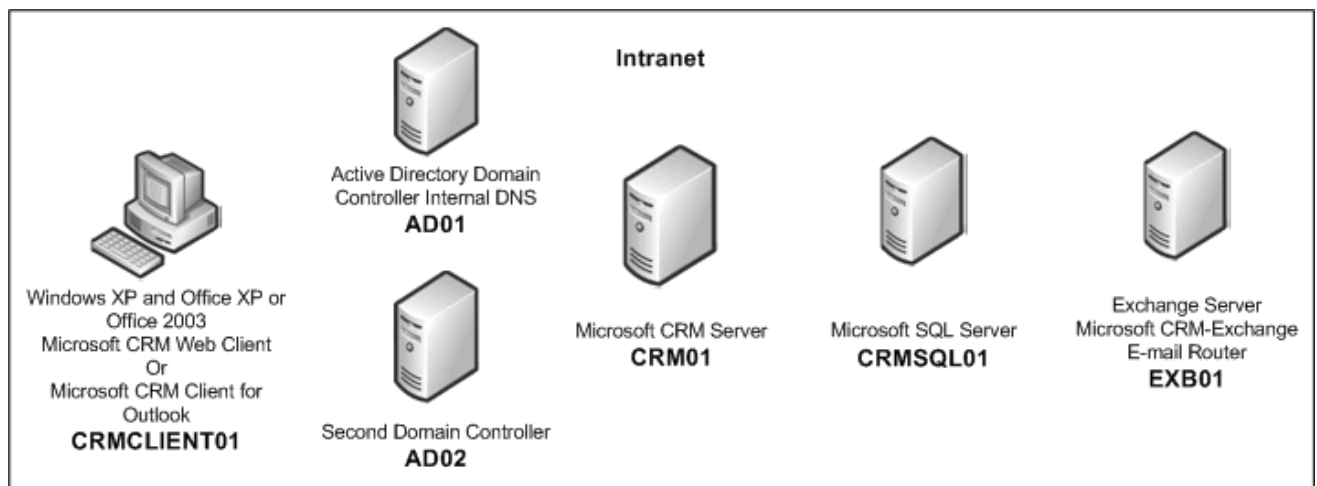
Multiple Server Deployment

As shown in the following figure, a base scenario describes a minimum six-server deployment with:

- Microsoft CRM Server
- Microsoft SQL Server 2000 or Microsoft SQL Server 2005
- Microsoft Exchange 2000 Server or Exchange Server 2003
- A computer acting as the Active Directory® domain controller and DNS server, and a second computer acting as a second (redundant) Active Directory domain controller

Note that the main Microsoft CRM components, Microsoft CRM Server, Microsoft SQL Server including Reporting Services, and Microsoft Exchange Server, must be located in the same Active Directory domain.

This figure also shows computer names assigned to the various computers. These names are used to reference individual computers in "Installing on Windows 2000 Server" and "Installing on Windows Server 2003" later in this guide.



Base server architecture

[Hardware recommendations for Microsoft Exchange Server](http://go.microsoft.com/fwlink/?LinkId=51932) (<http://go.microsoft.com/fwlink/?LinkId=51932>)

[Hardware recommendations for Microsoft SQL Server](http://go.microsoft.com/fwlink/?LinkId=51933) (<http://go.microsoft.com/fwlink/?LinkId=51933>)

The hardware recommendations for a Microsoft CRM Server computer are listed later in this section.

In addition to the required components, other supporting components provide necessary functionality. These components include networking and security components. Also, for performance and redundancy, it may be necessary to have multiple Active Directory domain controllers and Microsoft Exchange servers.

Single Server Deployment

The Small Business Server scenario is the only recommended one-computer server deployment for Microsoft CRM. Windows Small Business Server 2003 supports up to 75 client computers. Small Business Server 2000 helps you take advantage of the rapidly changing Internet, manage and grow customer relationships, and enhance your company's productivity by working with server software, including Microsoft Windows 2000 Server, Microsoft SQL Server 2000, Microsoft Exchange 2000 Server, and Microsoft Internet Security and Acceleration (ISA) Server 2000. Adding Microsoft CRM Server provides communication tools to help you keep in touch with current customers, reach new customers, and track sales and support activities using a shared contact database.

The base Microsoft CRM Server architecture and Windows Small Business Server includes the following:

- Server computer
 - Microsoft Small Business Server acting as an Active Directory domain controller
 - Microsoft CRM Server
 - Microsoft SQL Server
 - Microsoft Exchange Server
- Client Computers
 - Microsoft Windows XP Professional or Windows 2000 Professional
 - Microsoft Office 2003
 - Microsoft CRM Web Client (using Microsoft Internet Explorer 6 SP1)
 - Microsoft CRM client for Outlook®

Hardware requirements and how to install Microsoft CRM on Microsoft Small Business Server are discussed later in this section.

Microsoft CRM Server Hardware

Microsoft CRM Server requires the following minimum hardware configuration:

- Computer/processor: Dual 700 MHz or higher Intel Pentium (Xeon PIII) or compatible CPU
Recommended: Dual 1.8 GHz Pentium (Xeon P4)
- Memory: 512 megabytes (MB) of RAM
- Hard disk: SCSI with hardware RAID 5
- Network card: 10/100 megabit

Microsoft CRM Server Software Requirements

The following table shows the software requirements for Microsoft CRM Server.

| Component | Windows 2000 Server | Windows Server 2003 |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating System | Microsoft Windows 2000 Server Microsoft Windows 2000 Advanced Server All with the latest service pack | Microsoft Windows Server 2003 Standard Edition Microsoft Windows Server 2003 Enterprise Edition Microsoft Windows Server 2003, Web Edition All with the latest service pack |
| Indexing Service | Installed and service started | Installed and service started |
| Internet Information Services (IIS) | Version 5.0 (included with Windows 2000 Server) or later | Version 6.0 (included with Windows Server 2003) |
| Microsoft Data Access Components (MDAC) | Version 2.71a | Version 2.8 (included with Windows Server 2003) |
| Microsoft XML Core Services (MSXML) | Version 4.0 with Service Pack 2 (installed during Microsoft CRM Server installation) | Version 4.0 with Service Pack 2 (installed during Microsoft CRM Server installation) |
| Microsoft .NET Framework 1.1 | Installed during Microsoft CRM Server installation | Installed during Microsoft CRM Server installation |

The computer that is running Microsoft CRM Server must also have access to computers in the same Active Directory domain that are running:

- Microsoft SQL Server 2000 service pack 4 and the latest updates.
- Microsoft Exchange Server 2003 or Microsoft Exchange 2000 Server with the latest service pack.

Microsoft CRM Server Small Business Edition is designed for Microsoft Small Business Server, on which Microsoft CRM Server can coexist on the same computer as both SQL Server and Exchange Server. When you use Microsoft Windows 2000 Server or Windows Server 2003, you can combine Microsoft CRM Server on the same computer as either SQL Server or Exchange Server, but we do not recommend these configurations.

Microsoft CRM Web Application Software Requirements

Microsoft CRM Server is accessed through a client. This client is either Microsoft Internet Explorer or Microsoft Outlook. To use Internet Explorer, you must have the following:

- Microsoft Windows 98, Microsoft Windows 98 Second Edition, Microsoft Windows Millennium Edition, Microsoft Windows 2000 (Server or Professional) with service pack 4, Microsoft Windows XP Professional with service pack 1, or Windows Server 2003 (Web, Standard, or Enterprise)
- Microsoft Internet Explorer 6 SP1

Microsoft CRM 3.0 Client for Microsoft Office Outlook Software Requirements

There are two Microsoft CRM clients for Outlook:

- **Microsoft CRM 3.0 Desktop client for Microsoft Office Outlook.** Install this client on workstations (including computers that are shared by several users) that do not go offline and do not have a connection to the local area network.
- **Microsoft CRM 3.0 Laptop client for Microsoft Office Outlook.** Install this client on computers that go offline.

Both Microsoft CRM clients for Outlook require:

- Windows 2000 Professional with SP4 or Windows XP Professional with SP1 (Service Pack 2 is supported but not required)
- Microsoft Office 2003 Editions with SP1

OR

- Microsoft Office XP (2002) with SP3
- Microsoft Internet Explorer 6 SP1
- Microsoft .NET Framework 1.1
- Windows Indexing Service (for only the Microsoft CRM laptop client for Outlook)
- Microsoft SQL Server 2000 Desktop Engine (MSDE) (for only the Microsoft CRM laptop client for Outlook)

Although both clients have similar software requirements, there are the following differences:

- Both clients cannot be installed and cannot co-exist on the same computer at the same time.
- You can install the Microsoft CRM laptop client for Outlook for only an individual user.
- To switch from one client to the other on the same computer, you must uninstall the client you do not want and install the client that you want to use.
- The Microsoft CRM desktop client for Outlook allows multiple users. However, each person logging on to the client computer must use the same client installation and the computer must be set to only one language configuration.

Installing Microsoft CRM on a Microsoft Virtual Machine

You can install Microsoft CRM on computers that are running either Microsoft Virtual Server 2005 or Microsoft Virtual PC 2004. However, note the following support conditions:

- Because of decreased performance do not use Microsoft CRM running on a virtual machine as your main production business environment.
- Microsoft CRM Support Services will consider Collaboration Requests and hotfix investigations for issues that involve Microsoft CRM and Microsoft Virtual Server 2005 or Microsoft Virtual PC 2004 only in test, development, and demonstration systems.

Microsoft CRM-Exchange E-Mail Router Requirements

The following is a list of prerequisite software and configuration items that must be installed before installing the Router:

- Microsoft Windows 2000 Server (or Advanced Server) with service pack 4, or Windows Server 2003 (Web, Standard, or Enterprise). Also install the following applications:
- Microsoft Exchange Server 2003.
- Microsoft CRM Server must be installed and operational.
- Microsoft Exchange Server 2003 must be installed and operational on the computer that the Router is to be installed.
- The user installing the Router must be a member of the Domain Administrators group and have Local Administrator credentials on the Microsoft Exchange Server.
- It is required that you log on to the computer where the Router is to be installed as a user that has local administrative privileges on the computer running Microsoft CRM.

The following components are required and are installed during Microsoft CRM-Exchange E-mail Router installation:

- Microsoft XML Core Services (MSXML) 4.0 with SP2
- Microsoft .NET Framework 1.1

Windows Small Business Server 2003 Hardware Requirements

The following table lists the minimum hardware equipment requirements and some recommendations for Windows Small Business Server 2003. We recommend that Small Business Server support up to 25 users, but it can support up to 75 users.

| Component | Requirement | Recommendation |
|----------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor | Dual Intel Pentium Xeon PIII 700 MHz or comparable single CPU speeds | Dual 1.8 GHz (Xeon P4) or comparable single CPU speeds |
| Memory | 512 MB of RAM | 1 GB of RAM or more, depending on the system configuration |
| Hard disk | 8-gigabyte (GB) available hard disk space | SCSI hard drives partitioned with RAID 5, depending on the system configuration |
| Modem | No modem | Two modems, one for Shared Fax Service and one for Remote Access Service, Shared Modem Service, and Internet Security and Acceleration Server dial-up service |
| CD drive | CD drive | CD drive |
| Network Adapter card | 1 Network adapter card (10/100 megabit Ethernet) | 2 Network adapter cards (10/100 megabit Ethernet) |
| Video card | Video graphics adapter that is capable of 256 colors and 800 X 600 pixels | Video graphics adapter that is capable of 256 colors and 800 X 600 pixels |

Hardware is the most common cause of performance problems in a Small Business Server network. You can optimize the performance of Small Business Server components, especially Exchange Server 2003 and SQL Server 2000, by considering the following:

- **Memory (RAM).** Additional physical memory is frequently the key to improved performance, especially for Exchange Server 2003. To maximize server performance, increase system RAM.
- **Redundant array of independent disks (RAID) hardware.** Using multiple, fast SCSI drives (7200 RPM or faster) and individual SCSI disk controllers can improve input/output (I/O) processing and read/write times. If you are running SQL Server 2000 or expect heavy file sharing and printing on your Small Business Server network, consider using RAID.