

# Good™ Mobile Messaging Good™ Mobile Control for IBM Lotus® Domino®

Wireless Enterprise Messaging and Data Access System

## Quick Installation Guide

Good for Enterprise

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# 1 Quick Installation

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Welcome to Good for Enterprise, the behind-the-firewall, wireless corporate email and data system from Good Technology, Inc.

Good for Enterprise installation is simple and straightforward. An experienced IBM® Lotus® Domino® administrator should be able to complete the process in less than an hour.

This chapter outlines the installation process. Chapter 2 provides an overview of the Good for Enterprise system. Chapters 3 through 6 provide detailed installation instructions, should you need them.

This *Quick Installation Guide* outlines the installation process. The *Good Mobile Messaging Administrator's Guide* provides an overview of the Good Messaging system and detailed installation instructions, should you need them.

## Prerequisites

You will be installing an additional IBM Lotus Domino server in your production Domino domain, on the machine to host the new Good Mobile Messaging Server. You'll install this new Domino server with the "Primary Domino Directory (recommended)" option. This Domino server should have the ability to connect to other Domino servers in your Domino domain(s); required connection documents

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from this Good Messaging Domino server to the other servers must be set up. Your production Domino servers can be installed on any operating system, but the Domino server on which Good for Enterprise is to be installed must be running Microsoft Windows.

Then you will be installing:

- A Good Mobile Control (GMC) Server, which provides facilities for managing Good Messaging users and their handhelds. You'll install this server first.
- Good Mobile Messaging Servers, which synchronize user handhelds with their Lotus Domino accounts.

Ensure that the Good Mobile Messaging Server and Good Mobile Control Server host machines, and your Domino server, conform to the following prerequisites. For environments serving more than 1,000 handhelds, we recommend installing the Good Mobile Control Server on a separate host machine; otherwise, a Good Mobile Messaging Server and Good Mobile Control Server can share the same host machine.

Good Mobile Messaging Server minimum host system requirements:

- Hard drive space free for each Good Mobile Messaging Server:
  - 65MB system installation (50MB in Good program files; 15MB in IBM program files)
  - 3GB logs
  - 40MB/device cache (leave room for growth)
  - 2.5MB/device SQL database (“Preparing for SQL Server Use” on page 8)

These space requirements do not include those for Good Mobile Control Server if it is on the same machine.

- For 32-bit: Dual-core Intel® Xeon® processor (2GHz or greater), 4GB RAM, Windows 2003.

For 64-bit: Intel Pentium IV quad-core processor (2GHz or greater), 8GB RAM, Windows 2008 R2 SP1.

For scalability information, refer to “Scalability” on page 7.

If a virtual machine session is used for Good Messaging, the free drive space and RAM requirements also apply.

- Good Messaging is an I/O intensive application; consider this fact when deciding which other applications are to run on the same host machine.
- Good Mobile Messaging Server is supported as Guest on VMware ESX 3.0.1, 3.5, 4.0 and 4.1. Good Mobile Control is supported as a Guest on VMware ESX 3.5, 4.0, or 4.1. If Good Mobile Control is installed in the same Guest as another Good product, then VMware ESX 3.5, 4.0, or 4.1 is required. Good Mobile Messaging Server and Good Mobile Control are supported as Guests on a Windows 2008 64-bit SP2/R2 SP1 and R2 64 Bit Hyper-V Host.
- Required minimum LAN speed for the servers: 100Mbps Note: With the Good Messaging Domino server connection to other Domino servers in your Domino domain, the speed of the network connection must sustain a minimum rate of at least 100Mbps. Slower network connections between the Domino server on which Good Messaging runs and other Domino servers will cause increased message latency.
- Lotus Notes client must not be installed on the Good Messaging host machines.
- SMTP Service should not be enabled on the Domino instance running on the Good Mobile Messaging Server.

Good Mobile Control Server minimum host requirements:

- Hard drive space free for each Good Mobile Control Server:
  - 300MB system installation
  - 250MB logs
  - 38KB/device SQL server database (“Preparing for SQL Server Use” on page 8)

These space requirements do not include those for Good Mobile Messaging Server if it is on the same machine.

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- Dual-core Intel® Xeon® processor (2GHz or greater), 1.5GB RAM; for increased number of users: Intel Pentium IV dual processor (2GHz or greater), 2GB RAM
- A single Good Mobile Control Server can handle up to 6,000 users spread over multiple Good Mobile Messaging Servers.
- Good Mobile Control supports up to 10 devices per user.
- Microsoft Internet Explorer 7.0 and Firefox 3.5 are supported. Internet Explorer 6.0 and 8.0 are **not** supported.

Additional Good Mobile Messaging Server and Good Mobile Control Server requirements:

Good Mobile Control Server requires Windows 2003 with Service Pack 2, or Windows 64-bit 2008 Standard and Enterprise with Service Pack 2 or R2 SP1 64-bit. Windows 2000 is not supported.

- Good Mobile Messaging Server and Good Mobile Control Server host machines must have Internet access. They should be able to connect to http port 443 (secure https). To check this, use a browser on the host machine to connect to a secure remote location. If you'll be using a proxy server, you'll enter the necessary information for that server during the installation process (refer to the Administrator's Guide).

If you limit outbound HTTP and HTTPS on your firewall, you should open outbound ports 80 and 443 for IP ranges 216.136.156.64/27 and 198.76.161.0/24 for Good Messaging to work properly. (Version 5 required that you open outbound ports 80 and 443 for IP address 198.76.161.28 for Good Messaging to work properly. Version 6 requires, in addition, IP address 198.76.161.29 for use by Good Mobile Control.) Do not put the Good Mobile Messaging Server and GMC Server in the DMZ zone or block any LAN ports. The Good Mobile Messaging Server and operating system calls have many port dependencies for interfacing with Domino mail servers and AD, especially TCP 1433 (Database) and 1352 (NRPC). The Windows firewall is not supported for use with Good Mobile Control. Note that in Windows 2008, the Windows firewall is turned on by default. If currently on, turn off the firewall in Windows 2003 or 2008.

Outbound network hostnames for Good Operations Center:

- www.good.com HTTPS 443 216.136.156.64/27
- upl01.good.com HTTPS 443 216.136.156.64/27
- xml28.good.com HTTPS 443 198.76.161.0/24
- xml29.good.com HTTPS 443 198.76.161.0/24
- xml30.good.com HTTPS 443 198.76.161.0/24
- gti01.good.com HTTPS 443 198.76.161.0/24
- Good Mobile Control Server requires port 19005 to be open for communication with Good Mobile Messaging Server and for web services. Good Mobile Messaging Server requires ports 10009 and 10010 to be open for communication with Good Mobile Control Server and other uses.
- In order to receive new message notifications while using the Good client for iOS devices on wifi networks, the following IP range and port need to be open:

TCP port 5223 incoming/outgoing

The firewall needs to accept traffic from 17.0.0.0/8 port 5223. This is the external IP range of the Apple Push Notification Service

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servers, which provide the message notifications for the Good email service on the iOS devices.

- The host machine should not have an MSDE or SQL Server installed on it, unless you choose to create a database on an existing Microsoft SQL 2005 or 2008 Server for use with Good for Enterprise.
- Windows Installer 3.0 is required for installation of Good Mobile Messaging Server. Windows Server 2003 with Service Pack 1 (SP1) includes Windows Installer 3.0.
- Before installing Good Mobile Messaging Servers and Good Mobile Control Servers, ensure that the host machines' time and date are set to your network's correct time and date. Otherwise, errors such as a Security Alert regarding a problem with the site's security certificate may occur.
- "Local administrator" privileges are required for GMC Server installation. The GoodAdmin account can be used for GMC Server installation but is not required.

SQL Server, .NET Framework, and Console requirements (links subject to change) (note these requirements if you plan to use an SQL server of your own; otherwise, Good Mobile Control will install SQL Express for you. SQL Express supports up to 4GB databases only.):

- Microsoft SQL Server 2005 Express Edition Service Pack 3:  
<http://www.microsoft.com/downloads/details.aspx?familyid=3181842A-4090-4431-ACDD-9A1C832E65A6&displaylang=en>  
<http://www.microsoft.com/sql/editions/express/sysreqs.msp>
- Microsoft SQL Server Management Studio Express Service Pack 2:  
<http://www.microsoft.com/downloads/details.aspx?FamilyID=6053c6f8-82c8-479c-b25b-9aca13141c9e&DisplayLang=en#Requirements>
- Microsoft .NET Framework 2.0 Service Pack 1 (x86):

<http://www.microsoft.com/downloads/details.aspx?familyid=79BC3B77-E02C-4AD3-AACF-A7633F706BA5&displaylang=en#Requirements>

## Scalability

Good Mobile Messaging Server has been certified to handle 800 devices (64-bit version) or 650 devices (32-bit version) while accommodating HTML and GMA Secure Browser traffic. This performance was attained on the following server configurations:

### 32-bit version

- Good Messaging Server build 6.3.1.74
- Windows 2003 SP2
- 4GB of RAM, dual-core processor

### 64-bit version

- Good Messaging Server build 6.3.1.74
- Windows 2008 R2
- 8GB of RAM, quad-core processor

This assumes that 20% of devices are currently actively using GMA Secure Browser and 100% are using the HTML email feature. This assumes a mix of 25% Windows Mobile/Android devices and 75% iOS devices. If HTML and Secure Browser are not enabled, 1,000 devices are supported in the 64-bit version.

Note that these are the minimum requirements to attain this performance. If you are running older configurations, do not scale to this number; remain at the devices/server guideline that was communicated to you upon sale.

A single Good Mobile Control Server can handle up to 6,000 devices spread over multiple Good Mobile Messaging Servers, subject to the machine and operating-system requirements provided above.

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Good Mobile Control supports up to 10 devices per user.

### **Preparing for SQL Server Use**

Good Mobile Control and Good Mobile Messaging Servers require access to a Microsoft SQL server (the same or different servers). You can use an existing Enterprise or Standard Microsoft SQL Server 2005, 2008, 2008 R2, or 2008 ENT, or SQL server instance available within the organization. Good Mobile Control Server and Good Mobile Messaging Server can connect to a remote SQL server/instance. If you don't have an SQL server that you want to use, a (non-remote) server will be installed along with it.

**Multiple Good Mobile Control and Good Mobile Messaging Servers can share an SQL instance but must use separate databases within that instance. If two GMC Servers attach to the same database, data loss may occur. An SQL instance is defined as a copy of SQL running on a computer.**

**Multiple Good Mobile Messaging Servers can also share an SQL instance but must use separate databases within that instance. If two Good Mobile Messaging Servers attach to the same database, the database maybe become corrupted, resulting in devices being disconnected from the Server and other unexpected issues. An SQL instance is defined as a copy of SQL running on a computer.**

Note: SQL Server 2005 Cluster and SQL Server 2008 SP2 Cluster are supported.

Good Mobile Control requires ~38KB/device of SQL Server database space.

Good Mobile Messaging requires 2.5MB/device of SQL Server database space.

Some knowledge of SQL installation, configuration, and maintenance will be useful if you plan to use an existing database.

You'll need the name of the service account you will use to run the Good Mobile Control Service.

**SQL Servers enforce their own authentication and authorization. If you encounter an SQL error during the installation process, you'll need to confirm that your SQL configuration information was entered correctly. If you will be using your own previously installed SQL Server instance, gather the following information in advance. You'll be required to provide it during Good Mobile Control and Good Mobile Messaging Server installation.**

- The fully qualified machine name of your SQL Server instance
- Method of connection to your existing SQL Server instance (static port, named instance (dynamic port), or connected to it as the default instance)
  - If static port, the port number
  - If named instance, the instance name
- Authentication mode used to connect to your SQL Server instance (Windows authentication/SQL Server authentication)
  - If Windows authentication, the service account name entered above must already have a login to SQL Server, or, if not, add a login for the service account name to your SQL Server instance, granting it at least the Server-Level Role of "dbcreator."
  - If SQL Server authentication, the SQL Server login name you use to connect to SQL Server with, and the password for this SQL Server login. You will be prompted for the login and password during the Good Mobile Control installation. The SQL Server login must be a member of the "dbcreator" security role. If not, add the login to the dbcreator security role so that the Good Mobile Control install can create its own database and table within the SQL Server instance.
- If your existing database is remote, ensure that TCP/IP is enabled for "Local and Remote connections" on your SQL Server instance.

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### *Remote SQL*

To use remote access, the IT administrator should configure the remote SQL server to accept the necessary connections from Good Mobile Control Server and Good Mobile Messaging Server. This includes but is not limited to:

- Allowing connections via TCP/IP
- Allowing connections via a preconfigured port
- Opening any necessary port in any firewall between Good Servers and the SQL server
- Creating or obtaining a valid SQL Server user name and password to connect to the remote SQL server during installation or the ability to log in as admin "sa."

The SQL Server username should have db\_owner rights to its database. If db\_owner is not to be granted to an application all the time due to security practices, we recommend that db\_datareader, db\_datawriter, and db\_ddladmin be granted for every day operations. A successful uninstall of GMM requires the username to have db\_owner rights.

We recommend testing remote database SQL server connectivity before beginning an installation.

Related articles from Microsoft:

- To Configure using TCP/IP - <http://support.microsoft.com/kb/914277>
- To configure using static Port - <http://support.microsoft.com/kb/823938>
- Installing SQL Server 2005 SP3 (complete process) - [http://technet.microsoft.com/en-us/library/ms143516\(SQL.90\).aspx](http://technet.microsoft.com/en-us/library/ms143516(SQL.90).aspx)
- SQL Server Installation (SQL Server 2008 R2) - <http://msdn.microsoft.com/en-us/library/bb500469.aspx>

## Lotus Domino configuration requirements

Lotus® Domino configuration requirements:

- Lotus Domino Primary Messaging Server 7.0.2 or higher. Server versions 8.0/8.5/8.5.1 are recommended, and are **required for Secondary servers**, to take full advantage of Mobile Messaging's performance features. (With Windows 64-bit, we support the Domino 32-bit version.)
  - Domino 7 supports a 32-bit OS
  - Domino 8 supports 32- or 64-bit OS.
  - Domino 8.5.1 FP4, 8.5.2 FP1, 8.5.2 FP2, and 8.5.3 are supported.
  - Windows 2003 supports a 32-bit processor
  - Windows 2008 supports 32-bit and 64 bit processors.
- Install the Domino server as a Domino Messaging server.
- The Domino server on which Good Mobile Messaging Server is to be installed should be installed as a Windows service and should be configured to run as a Windows service and not as a regular application
- The Domino server on which Good Messaging runs must be installed with the "Primary Domino Directory (recommended)" option.
- If the primary Domino server is in a 64bit Domino environment, the Good Mobile Messaging Server must be installed against a secondary 8.x Domino server in a 32bit Domino environment
- The Domino server on which Good Messaging is to be installed should not be installed as a "partitioned server." Good Messaging does not support and cannot be installed on a partitioned Domino server.
- The Domino server on which Good Messaging runs must have read/write access with "Delete Documents" privileges on every user mail file in your organization. Usually the "LocalDomainServers" group has these required rights. You may not need to alter the Access Control List as long as this Domino

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server (on which Good Messaging is being installed) is listed in the “LocalDomainServers” group.

- If the Domino server on which Good Messaging runs does not have any rights to the users’ mail files and you are setting up the ACL, this server requires Editor access or higher (such as Designer or Manager access) with the following rights:
  - Create Documents
  - Delete Documents
  - Create personal folders/views
  - Read Public documents
  - Write public documents
- Good Mobile Messaging Server uses the Lotus Domino server ID while instantiating the Lotus Domino APIs and accessing Domino mail databases on other servers in your Domino domain(s). It is recommended that the server ID have the Server ID property “Don't prompt for a password from other Notes-based programs” checked/enabled.
- If your Domino infrastructure has multiple domains:
  - The Domino server on which Good Messaging runs must have “Directory Assistance” enabled for every Domino domain in your organization.
  - The Domino server on which Good Messaging runs must have connection documents to the Domino servers in the other Domino domains. The Good Messaging Domino server should be a member of “LocalDomainServers” group in every Domino domain.
  - The necessary Cross certification, either per-server or per-organization level, must be established between the Domino server on which you are installing Good Messaging and the mail and directory servers in other domains to which this Domino server connects.

## Pre-installation

Note the following:

- Microsoft SQL Express will be installed and configured during the installation of your initial Good Mobile Messaging Server unless you specify a different SQL database to be used. (SQL Express supports up to 4GB databases only.)
- Windows Installer 3.0 is required for installation of Good Mobile Messaging Server. Windows Server 2003 with Service Pack 1 (SP1) includes Windows Installer 3.0.
- The host machine should not have an MSDE or SQL server installed on it.

To uninstall SQL Server if present, refer to Chapter 10 of the *Good Mobile Messaging Administrator's Guide*.

- In order to install the Good Mobile Messaging Server, you must log in as a Windows Domain user listed as a member of the Administrators group on that machine.

We recommend that you create a new Windows Active Directory (AD) account for installing and running Good Messaging services (Good Messaging Domino directory service, Good for Enterprise service, Good server Domino directory service, Good Mobile Control service). After creating the AD account, assign it "Local Administrator" privileges, then log on as the new AD user and proceed with the installation. For this release, use Active Directory (ADSI) authentication when installing Good Mobile Control.

## Installing Good Messaging

We recommend against running BlackBerry™ Enterprise Server on the same machine as a Good Mobile Messaging Server or GMC Server, when both are present.

1. Download Good Messaging software as directed by your authorized sales representative (typically, from <http://>

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[www.good.com/download](http://www.good.com/download)), and after unpacking it, run setup.exe. You use this utility for the Messaging Server, GMC Server, and Good Messaging client software installations.

2. Install the GMC Server first and then install one or more Good Mobile Messaging Servers.
3. Run GMC Console and create roles for use of the console on different machines. Roles for service administrator, administrator, and helpdesk are packaged with the console. Note: First Console access must be by the Superuser specified during GMC Server installation. Launch the Console using `https://servername:8443` or `http://servername:8080`, where *servername* is the name of the machine on which Good Mobile Control Server is installed. You cannot access the console from a browser on the GMC machine. Use your Windows username and password to log in.  
**Note:** The GMC session in your browser will time out after one hour of no activity. The timeout is not configurable.
4. Set up user handhelds as described in the following section.
5. Create policies and assign them to handhelds as described in Chapter 6 of the *Good Mobile Messaging Administrator's Guide*.

## Setting Up the Handheld

You set up handhelds wirelessly (Over The Air or "OTA" - distributed deployment model).

For details, refer to "Preparing New Handhelds" in Chapter 5 of the *Good Mobile Messaging Administrator's Guide*.

To set up the handheld:

1. Confirm with your service or sales representative that the Treo or Pocket PC is a supported device type (visit [http://www.good.com/index.php/products\\_platforms\\_devices.html](http://www.good.com/index.php/products_platforms_devices.html) for more information. It must have an active, supported network data service, as well as Good Messaging service. Some supported data

services may not support roaming. In such cases, Good Messaging, like the handheld's browser, will not work outside service areas. Visit <http://www.good.com> for more information.

**2. Handhelds should have the following available memory:**

- **Palm OS:** 14.5MB
- **Pocket PC:** 12MB (14MB for Treo 700WX)
- **Smartphone:** 12MB

Contact your authorized service representative for additional information on memory requirements.

Note that Palm is not supported by version 6.0 Client software, but earlier software versions do support Palm.

- 3.** The handheld battery should be fully charged (an alert will be displayed if the battery is below 25%).
- 4.** Use GMC Console to set up and activate user handhelds wirelessly:
- a.** On the Console Home page, click the "Add handhelds" link.
  - b.** Select the user who will be assigned the handheld.
  - c.** Specify a policy and group for the handheld.
  - d.** When finished, an email is sent to the user's Lotus Notes account. The email contains a PIN and URL. The handheld user connects to the URL and enters the PIN and from the site, Good downloads the OTA Setup application. OTA Setup is a wizard-like application that leads the user through a set of steps to authenticate the user, download and install Good Messaging Client software, and connect to Good Mobile Messaging Server to wirelessly synchronize the user's Lotus Notes account. You can set policies for PIN expiration and reuse, as described in Chapter 5 of the *Good Mobile Messaging Administrator's Guide*. You can display the PIN and URL information at the Console by going to the OTA page for the handheld on the Handhelds tab.

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You can quickly check the connection status between Good Mobile Messaging Servers and the Good Network Operations Center, and between the Servers and the handhelds they service, using the Good Monitoring Portal located at [www.good.com/gmp](http://www.good.com/gmp). Like the GMC Console, the Good Monitoring Portal provides information about users, their handheld types and service carriers, and much more.