1 Introduction

This note describes how to upgrade to Good Mobile Messaging server 7.2.3 and Good Mobile Control server 2.7.1 from earlier versions. Upgrading is tested and supported for the two most recent previous versions. Upgrading from earlier versions will require additional steps to complete the upgrade; in this case, contact your Good technical-support representative for the appropriate additional upgrading steps and additional software required.

Upgrades should be performed in the order given in this note.

ws.good.com HTTPS 443 216.136.156.64/27 has been added to the outbound network hostnames for Good Operations Center.
2 Pre-Upgrade Instructions

Important note:
After this upgrade, you can use the same GoodAdmin service account for both Good Mobile Messaging Server and Good Mobile Control Server.

Warning: Downgrading the Good servers, once upgraded, is not recommended.

The latest version of Good Mobile Messaging server, Good Mobile Control server, and Good Mobile Control console support the latest version of Good Mobile Messaging Client, as well as the two previous versions of the Client; in the same way, the latest version of the Good Mobile Messaging Client supports the latest version of Good Mobile Messaging server, Good Mobile Control server, and Good Mobile Control console, as well as the two previous versions. However, note that new features in the latest version are not supported on the two previous versions.

2.1 Preinstallation Steps

If you are upgrading to this latest GMM Server version, you will need to take the following steps:

Note: To use the EWS protocol instead of MAPI for Calendar functionality (EWS is only available in this release for Calendar use), set the impersonation role as described. For EWS use, this is required, rather than Send As permissions.

Note: GFE command-line utilities now require Java 8. The Java upgrade will overwrite existing Java files and folders; the cert store will be overwritten with default certs. Back up any SSL certs before upgrading to this version; add these certs again after the upgrade is complete.

1. Install .Net 3.5 SP1.
2. Set the following Exchange Web Service permissions:

   Exchange 2007
   The following permissions are needed to impersonate a user using Exchange Web Services:
   
   ms-Exch-EPI-Impersonation
   ms-Exch-EPI-May-Impersonation

   Note: May-Impersonation is on a user basis.

   Configure the Exchange 2007 Management Shell:
   
   Get-ExchangeServer | Where {$_._.ServerRole -match "ClientAccess"} | Add-ADPermission -User "User Name" -ExtendedRights ms-Exch-EPI-Impersonation -InheritanceType None
   and:

   Get-MailboxDatabase | Add-ADPermission -User "User Name" -ExtendedRights ms-Exch-EPI-May-Impersonate -InheritanceType All

   Replace the "User Name" value with the name of the user that you want to have the permissions.

   Exchange 2010

   Option #1: To configure Exchange Impersonation for all users in an organization:

   Open the Exchange Management Shell.
   Run the New-ManagementRoleAssignment cmdlet to add the permission to impersonate the specified user. The following example shows how to configure Exchange Impersonation to enable a service account to impersonate all other users in an organization.

```
New-ManagementRoleAssignment -Name:impersonationAssignmentName -Role:ApplicationImpersonation -User:serviceAccount
```
Example:

```powershell
New-ManagementRoleAssignment -Name:GMMEWSPermissions -Role:ApplicationImpersonation -User:"goodadmin@sqadev.qagood.com"
```

**Option #2:** To configure Exchange Impersonation for specific users or groups of users:

Open the Exchange Management Shell.

Run the `New-ManagementScope` cmdlet to create a scope to which the impersonation role can be assigned. If an existing scope is available, you can skip this step. The following example shows how to create a management scope for a specific group.

```powershell
New-ManagementScope -Name:scopeName -RecipientRestrictionFilter:recipientFilter
```

Run the `New-ManagementRoleAssignment` cmdlet to add the permission to impersonate the members of the specified scope. The following example shows how to configure Exchange Impersonation to enable a service account to impersonate all users in a scope.

```powershell
New-ManagementRoleAssignment -Name:impersonationAssignmentName -Role:ApplicationImpersonation -User:serviceAccount -CustomRecipientWriteScope:scopeName
```

The `RecipientRestrictionFilter` parameter of the `New-ManagementScope` cmdlet defines the members of the scope. You can use properties of the Identity object to create the filter. The following example is a filter that restricts the result to a single user with the user name "john."

```powershell
"Name -eq 'john'
```

3. If desired, enable detailed calendar reminder notification.

Set registry string value to enable this feature:

```plaintext
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GoodLinkServer\parameters\PushManager] "SendSubjectLocation"="1"
```

Restart the GoodLink Server service.

Note: Only calendar items created after this change will contain detailed calendar reminders.

### 3 Upgrading from an Earlier Good Messaging Version

#### 3.1 Best Practices

Good Messaging software is designed for quick and easy upgrade. However, as with all mission-critical software, you will want to test and upgrade your Good Messaging servers, Good Mobile Control servers, Good Mobile Control consoles, and Good Client Software according to the best practices implemented in your IT organization.

For example:

1. Although Good Messaging software is thoroughly tested, some organizations will choose to run Good Messaging server, Good Mobile Control server, and Good Messaging Client in a test environment before installation. Such testing can vary in length from a day up to a week.

2. Next, organizations with multiple Good servers may choose to at first upgrade the Good Messaging server, Good Mobile Control server, and associated Good Messaging consoles for a single GoodAdmin account with limited IT users/handhelds. In such a case, they may let the upgraded components run for up to a week.
3. After the server has been configured and operates correctly for a period of time, these organizations upgrade a larger number of handhelds as a pilot program.

4. Finally, the rest of the handhelds on the server are upgraded.

5. Using this conservative approach, the rest of the servers are upgraded to the new version. Each server runs for a day before the remaining handhelds are upgraded.

Always upgrade the servers before the handhelds

### 3.2 Performing the GMC Upgrade

To upgrade Good Mobile Control server and Good Mobile Control console, follow this procedure. If your GMC is already at v2.7.1, skip this section.

Note: With this GMC version, GFE command-line utilities require Java 8. The Java upgrade (part of the GMC upgrade) will overwrite existing Java files and folders; the cert store will be overwritten with default certs. Back up any SSL certs before upgrading to this version; add these certs again after the upgrade is complete.

1. Launch the Good Mobile Control installer. To do so, run setup.exe from the root of the installation media.

An upgrade screen is displayed.

2. Click Next and a license agreement is displayed. Accept the license agreement by clicking Next. A Host Selection screen is displayed for the SQL database that the GMC will use.
3. Choose Local SQL server Host and click Next.

4. Choose the same named instance as used before this upgrade and click Next.
5. Enter the same database name as used before this upgrade and click Next.

6. Do not change any of the values present by default in the fields on this screen (set during the previous installation of Good Mobile Control). Click Next.
6. On the Automatic Backup screen, disable automatic backup using the checkbox, or enable it by providing the destination drive. Click Next.

7. Click Next and the upgrade begins. The Good Mobile Control console files are installed.
8. Installation completes and the GMC service is automatically started if "Start Good Mobile Control server service" option is checked. Click Finish.

3.3 **Performing the GMM upgrade**

1. Login with a Good Admin service account and run the GMM installer. The Upgrade Good Messaging screen is displayed.
2. Choose Next. A license agreement is displayed. Accept the license terms.

3. Enter the user name and password to log in to your Microsoft Exchange account.

4. Register the GMM with Good Mobile Control. (Use the Advanced button to specify a specific console user account for registration.)

5. Click Next.
6. Current Good Messaging server configuration values are displayed.

7. Choose Next and Good Messaging files will be installed. With file installation complete, the following screen is displayed.

8. Choose Finish. The Good Messaging server upgrade is complete. You are returned to the initial installation screen.
3.4 Error Conditions

Note: In extremely rare circumstances, upgrading the Good Messaging server or Good Mobile Control server may fail if for some reason the previous server installation parameters have been altered in the registry. If you encounter upgrade problems, use the following procedure:

1. Uninstall Good Messaging server. When doing so, use the “Typical” uninstall option (or “Preserve Users” in older Good Messaging server versions). If uninstall fails, use Add/Remove Programs.
2. Install the earlier Good Messaging server using the same cache directory, license key, and serial number as for your previous installation.
3. Upgrade handhelds to the latest version. Note: Good Messaging server is compatible with two earlier Client versions. You can choose to upgrade the handhelds later.

4 Upgrading from an Earlier 7.x Version in a Cluster

Good For Enterprise supports the following cluster configurations:

- GMC/GMM on the same host
- GMC clustered (two nodes for GMC) and GMM clustered (two nodes for GMM – separate from GMC)
- GMC clustered and GMM standalone (not clustered)
- GMC standalone and GMM clustered

4.1 General Notes on Clustering

- The current version of GMC is capable of supporting different versions of GMM.
- We recommend that one cluster be upgraded at a time (both nodes). Complete the task before proceeding to the next cluster. For example, you might upgrade a GMC and one GMM cluster.
- One clustered GMM can be on 7.2 and the other can be on 7.1 or 7.0. We recommend that you upgrade all the GMMs to the same version as soon as possible. Do not plan to run in a mixed-version configuration indefinitely.
- In case of GMM server failure, it is possible to fail users over to a node that hasn't been upgraded, but this is not recommended because there are often SQL schema changes to accommodate new features in the newer GMM build.

4.2 Overview of the Upgrade Process with Clustering Present

For standalone servers, use the upgrade procedures documented in sections 3.2 and 3.3. For clustered servers, follow these general steps:

1. Upgrade the GMC first.
2. Make sure that the primary GMM node owns the shared resources in the Cluster Admin before taking the resources (GoodLink Cache Lock and GoodLink Service and shared drive) offline to upgrade.
3. Make sure that GoodLink Service is set to manual and not running.
4. Run the Good Setup.exe file. Do not start the service once upgrade is complete.
5. From the Cluster Admin select the Good Messaging Server resources (GoodLink Service and GoodLink Cache Lock) and bring them online.
6. Log into the secondary node.
7. Make sure that the secondary node is the owner of the resources (GoodLink Service and GoodLink Cache Lock and the shared drive).
Note: To verify ownership of the shared drive on the secondary node, click on the shared drive. If it’s accessible, ownership is on the secondary node. If it’s not accessible, the secondary node doesn’t have ownership.

8. Take the shared resources (GoodLink Service and GoodLink Cache Lock) offline in the Cluster Admin by right clicking on each resource and selecting “take offline.”

9. Make sure that GoodLink Service is set to manual and not running.

10. Run the Good Setup.exe file. Do not start the service once upgrade is complete.

11. From the secondary node, go to the common shared drive and delete the lock file dbfiles.lck. By default it’s found in the shared drive installation_directory\server_name

12. From the Cluster Administrator, select the Cluster Group that contains the Good Messaging Server resources. Right click on each resource (GoodLink Cache lock and the Good Link Service Online) and select “bring online.”

4.3 Upgrading the Primary Server in a Good Cluster

This section documents the configuration in which the GMC and GMM are on the same host.

Note: Before upgrading the primary server, make sure that the resources are owned by primary server and are offline. From the primary server host machine, launch the Microsoft Cluster Administrator.

1. Log on to primary server host machine. Launch the Microsoft Cluster Administrator. Make sure the primary server is the owner of all resources including the shared drive. If not, move the resources to the primary server.

2. Select the Cluster Group that contains the Good Server resource, Good Cache resource, and Good Mobile Control Server resource.

3. Right-click on each resource and choose Take Offline, or for each resource from the File menu choose Take Offline. Resources to take offline are: GMC Cache Lock, GMC Service, GMC SQL Server Service (if Local SQL), GoodLink Cache Lock, and GoodLink Service.

4. Verify that the Good service and Good Mobile Control service are not running and are set to Manual. If not, set the service to Manual. This setting is required.

5. Click on Setup.exe and install/upgrade the new version of Good Mobile Control Server. Do not start the service when prompted.

6. From the Cluster Administrator, select the Cluster Group that contains Good Mobile Control Server Resources. Bring online the following resources: GMC Cache Lock, GMC Service, GMC SQL Server Service (if local SQL).

7. Click on Setup.exe and install the new version of Good Messaging Server and complete the setup. Do not start the Good services when prompted.

8. From the Cluster Administrator, select the Cluster Group that contains the Good Messaging Server resources. Bring online the following resources: GoodLink Cache lock and GoodLink Service.

Now primary node is upgraded and running.

4.4 Upgrading the Standby Server in a Good Cluster

Note: Before upgrading the standby Server, ensure that the resources are owned by the standby Server and are taken off-line. Also stop/take off line the services from Node 1 and do a changeover to node 2.
1. Log on to the secondary Server host machine and launch the Microsoft Cluster Administrator. Make sure that the secondary Server is the owner of all resources including the shared drive. If not, move the resources to the secondary Server.

2. Select the Cluster Group that contains the Good Server resource, Good Cache resource, and Good Mobile Control Server resource.

3. Right-click on each resource and choose Take Offline, or for each resource, from the File menu choose Take Offline. Resources to take offline are: GMC Cache Lock, GMC Service, GMC SQL Server Service if local SQL is used, GoodLink Cache Lock, and GoodLink Service.

4. Verify that the Good service and Good Mobile Control service are not running and are set to manual. If not, set the services to Manual. The services must be set to manual.

5. Click on Setup.exe and install/upgrade the new version of Good Mobile Control Server. Do not start the service when prompted.

6. From the Cluster Administrator, select the Cluster Group that contains Good Mobile Control Server Resources. Bring online the following resources: GMC Cache Lock, GMC Service, and GMC SQL Service (if local SQL).

7. Click on Setup.exe and install the new version of Good Messaging Server and complete the set up. Do not start the service when prompted.

8. From the Secondary, go to the common shared location server, delete the lock files dbfiles.lck and emfiles.lck. By default, the file is found in shared drive \installation_directory\cache\server_name\. 

9. From the Cluster Administrator, select the Cluster Group that contains the Good Messaging Server resources. Bring online the following resources: GoodLink Cache lock and the GoodLink Service.

The upgrade is complete and now node 2 is up. After this move the Group back to primary if needed.

5 Upgrading Cold Failover
These procedures assume remote SQL Server implementation.

5.1 Shared Directory
1. Before beginning, stop the standby server GMC and GMM services and set them to manual.

2. If the standby server is running, have both GMC and GMM server failed over to the primary.

3. Have the primary GMC and primary GMM server services started.

4. Upgrade the primary GMC server.

5. Upgrade the primary GMM server.

6. Confirm that the GMC is functioning by logging in and verifying that the new version is listed in the Settings tab.

7. Confirm that the GMM is functioning by sending and receiving email, and log in to the GMC Console to verify that the new version shows under the Servers tab.

8. Stop Good Mobile Messaging Server on the primary host. Be sure that it is set to manual.

9. Stop Good Mobile Control service on the primary host. Be sure that it is set to manual.
10. Go to the shared directory where the emfdbfile.lck is located. Delete this file. (This is for the GMC.)

11. Go to the shared directory where the dbfiles.lck is located. Delete this file. (This is for the GMM.)

12. Go to the Standby GMC server. Do not start the services.

13. Upgrade the GMC server. Choose to start the service when prompted at the end of the upgrade.

14. Log in to make sure that it is working and that the new version is displayed under the Settings tab.

15. Go to the standby GMM Server. Do not start the service.

16. Upgrade the GMM server. Choose to start the service when prompted at the end of the upgrade.

17. Log in to the GMM server and verify that the GMM server is online and that the GMC Console shows the correct version under the Servers tab.

18. Verify a handheld attached to this GMM Server is able to send/receive.

This completes upgrading a primary and standby GMC/GMM server where a shared directory is being used.

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