

Good Control/Good Proxy Backup and Restore

Version 4.2



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Revision history

BlackBerry Dynamics Backup and Restore

Date	Description
2017-09-19	Determining whether you should upgrade to BlackBerry UEM
2017-07-18	Updated for latest release
2017-01-31	Version numbers updated for latest release; no content changes.
2016-12-19	Version numbers updated for latest release; no content changes.
2016-10-18	Corrected the General process for upgrading database software .
2016-09-15	Re-added instruction to Generalized process for comprehensive backup/restore of GD and GEMS to stop services before backing up.
2016-09-14	Clarified the topic General process for upgrading database software
2016-08-16	Added Check Registry After Restore
2016-07-29	Added Restoring Good Control from automatic backup
2016-07-21	Added caution to General process for upgrading database software
2016-07-01	Updated for latest release; see During upgrade, automatic backup of Good Control files and SQL Server DB .
2016-03-10	Truncated revision history to reduce bulk.
2016-01-15	Version numbers updated for latest release; no content changes.
2015-12-23	Version numbers updated for latest release; no content changes.
2015-10-16	Added details for Re-registering the GC and GP services in Windows
2015-07-15	Version numbers updated for latest release; no content changes.
2015-05-22	<ul style="list-style-type: none"> Added new Generalized process for comprehensive backup/restore of GD and GEMS .

Determining whether you should upgrade to BlackBerry UEM

If you require MDM or MAM capabilities, you must manage BlackBerry Dynamics apps using BlackBerry UEM. When you upgrade from Good Control to BlackBerry UEM, you not only get to use the great feature set that Good Control provides but you also get to take advantage of an enhanced feature set such as:

Determining whether you should upgrade to BlackBerry UEM

- Support for more policies for operating systems
- Better app management
- More container types
- Improved administration and provisioning
- Advanced connectivity and networking
- Expanded compliance and integrity checking
- Additional email, content, location, and certificate features
- Access to BlackBerry Web Services APIs

For information on how to use BlackBerry UEM to manage BlackBerry Dynamics apps, see the [Getting started with BlackBerry UEM and BlackBerry Dynamics content](#).

For more information on the benefits of using BlackBerry UEM, see [Benefits of upgrading from Good Control to BlackBerry UEM](#).

About backup and restore of BlackBerry Dynamics

Here are details about how to backup and restore the following servers of the BlackBerry Dynamics system:

- The BlackBerry Dynamics database
- The Good Control (GC) server
- The Good Proxy (GP) server

You can back up these servers in any order and at any time. However, we recommend that you backup/restore the GC server and the BlackBerry Dynamics database at the same time (or nearly the same time) to maintain data integrity.

Also included here is a high-level process for comprehensive backup and restore of both `GoodDynamics.GoodDynamics_ProductName` and the BlackBerry Enterprise Messaging System (GEMS). See [Generalized process for comprehensive backup/restore of GD and GEMS](#).

About BlackBerry Dynamics software version numbers

The cover of this document shows the base or major version number of the product, but not the full, exact version number (which includes "point releases"), which can change over time while the major version number remains the same. The document, however, is always current with the latest release.

Product	Version
Good Control	4.1.57.49
Good Proxy	4.1.57.51
BlackBerry Dynamics Bindings for Xamarin.Android	3.2.0.3073
BlackBerry Dynamics Bindings for Xamarin.iOS	3.3.0.3259

If in doubt about the exact version number of a product, check the BlackBerry Developer Network for the latest release.

Relationship to Cloud GC: feature not applicable

The feature, service, server type, or software described in this guide is not available on Good Control Cloud because it is not applicable in a hosted environment.

Your own disaster recovery policies and procedures

You should think of the server backup and restore of BlackBerry Dynamics servers as part of your own organization's disaster recovery plans, policies, and procedures. Plan on safeguarding your BlackBerry Dynamics backups just as you do other critical system backups. Likewise, plan for restoring BlackBerry Dynamics servers just as you would for restoring other mission critical software and systems.

Thus, the frequency of backups, where they are kept for safekeeping, the need for restore, and other aspects are entirely at your discretion and are not discussed here.

Safeguard your BlackBerry Dynamics license

The BlackBerry Dynamics Network Operations Center (NOC) recognizes your BlackBerry Dynamics servers by their licenses and uses these licenses to allow connections from activated BlackBerry Dynamics applications. If you delete the license, all activated BlackBerry Dynamics applications associated with that BlackBerry Dynamics server will be wiped and that BlackBerry Dynamics server will be rendered inoperative.

Important: Leave your existing BlackBerry Dynamics license in place when you backup and restore your BlackBerry Dynamics server; do not delete your BlackBerry Dynamics license through the BlackBerry Developer Network (GDN) portal.

Preparation: create backup locations on disk

We recommend that you create two directories on disk on each GP and GC server machine where you can backup to, one for **C:\good** and one for your *install_dir*. For example, you might name your directories as shown below. The drive identifier D: is only an example; use the appropriate identifier depending on available disk space.

Directory to Backup	Description	Suggested Backup Directory Name
C:\good	This is where the servers store log files and property files.	D:\backup\good
Your <i>install_dir</i>	The directory the server was installed in, which we refer to as <i>install_dir</i> .	D:\backup\installdir

For the database backup, choose any available tablespace that can accommodate the size of your data.

Approximate space requirements

So you can plan the size of your backup media, you should find out the approximate sizes of all components on disk.

Component	Approximate size/notes
GC Server C:\good and installation directory	Required size depends on how much the server is used. Before backing up, look at the current size of C:\good and the installation directory to determine exactly.
GP server C:\good and installation directory	Required size depends on how much the server is used. Before backing up, look at the current size of C:\good and the installation directory to determine exactly.
GC database	Required size depends on how much the server is used. Before backing up, use your database tools to get an approximate size of the BlackBerry Dynamics table spaces.

Backing up the BlackBerry Dynamics components

This section includes guidelines and steps for backing up the BlackBerry Dynamics components.

During upgrade, automatic backup of Good Control files and SQL Server DB

During upgrade the Good Control installation program makes automatic backups of key directories and the SQL Server database, as shown below.

What	Location of Backup File	Name of Backup File
<i>Good_Control_installation_dir</i>	<i>Good_Control_installation_dir\backups\latest_timestamped_dir</i>	GoodControl.zip
C:\good	<i>Good_Control_installation_dir\backups\latest_timestamped_dir</i>	good.zip

The SQL Server database is backed up to the database server itself.

For details on how to restore the automatic backups, see [Restoring Good Control from automatic backup](#).

Backing up the GC database

Using either Oracle or SQL Server, do a full backup of the GC database instance according to your company's policies. Contact your database administrators for more information.

Backing up the GC and GP servers

Backing up your GC and GP servers involves making a copy of two directories, as detailed in [Preparation: create backup locations on disk](#).

If you are upgrading your servers, the upgrade process creates an automatic backup for you. See details in [BlackBerry Dynamics Server Installation](#).

On each GC or GP server machine in the cluster, follow these steps:

1. Copy the entire **C:\good** folder to its backup location. Example:
C:\>xcopy /E c:\good c:\backup\good
2. Copy the installation directory to its backup location. Example:
C:\>xcopy /E install_dir c:\backup\installdir
3. Safeguard the backup according to your organization's policy.
4. Repeat the above steps on every GC server machine and on every GP server machine in the cluster.

Restoring the BlackBerry Dynamics components

Restoring Good Control from automatic backup

These are details on how to manually restore Good Control from the latest automatic backup created during upgrade. For background, see [During upgrade, automatic backup of Good Control files and SQL Server DB](#).

Setup

1. Locate the directory where you installed Good Control. This directory is referred to as *Good_Control_installation_dir*.
2. Locate the latest **backup** directory, as shown below:

What	Location of Backup File	Name of Backup File
<i>Good_Control_installation_dir</i>	<i>Good_Control_installation_dir\backups\latest_timestamped_dir</i>	GoodControl.zip
C:\good	<i>Good_Control_installation_dir\backups\latest_timestamped_dir</i>	good.zip

Example: C:\Program Files\Good Technology\Good Control\backup\2015-11-16_02-31-55

3. Stop the GC service and the GP service. See the [Good Control Online Help](#) for steps.
4. Remove the GC service. Open a command prompt as administrator and run the following command:
sc.exe delete GoodControl

Steps for restore

1. Navigate to *Good_Control_installation_dir*.
2. Delete all directories under this folder *except the backup directory*.
3. Extract the GC installation directory from latest **backup** directory into *Good_Control_installation_dir*.
Example: *Good_Control_installation_dir\backup\<latest timestamp>\GoodControl.zip* to *Good_Control_installation_dir*.
4. Extract the GC **good** directory from latest backup folder into **c:\good**.
Example: *Good_Control_installation_dir\backup\good.zip*
5. Restoring the GC database: Use the inverse of the process with SQL Server. Contact your database administrator for assistance, if necessary.

Note: For SQL Server 2014, be sure to enable the option **Overwrite with existing DB (WITH REPLACE)**.

Install the GC service

1. Open a command prompt as administrator.

2. Start GC's Tomcat service with the following command:

```
"install_dir\apache-tomcat-7.0.52\bin\service.bat" install
```

Example: "C:\Program Files\Good Technology\Good Control\apache-tomcat-7.0.52\bin\service.bat" install

3. Register the GCservice with the following command. A space is required between the parameters' equal signs and their values.

```
C:\Windows\system32\sc.exe config GoodControl obj= "domain\user"  
password= password
```

4. Start the GCService. See the [Good Control Online Help](#) for steps.

Verify

These are some basic verifications, which you can supplement with your own standard "sanity checks":

- Login to GC console.
- Start Good Proxy services and check that they successfully communicate with the Good Control.

Restoring the GC database

Database restore procedures vary from organization to organization.

Contact your database administrators to have them perform the restore of the associated databases according to their own procedures.

General process for upgrading database software

The general process for upgrading your database software follows Microsoft's guidelines: backup the old, restore to the new.

1. Quiesce your systems to minimize updates to the database while you complete these steps.
2. Backup the database from the old version of the database software.
3. Install the new database software on a separate, independent server.
4. On the new database server, restore the backup from the old database server.
5. Change the database properties of Good Control to point to the new database server. Consult the Good Control online help entry "Modifying GC Database Properties."
6. Start Good Control or other BlackBerry software to verify that all is working correctly.

Restoring the GC and GP servers

Restoring the GC and GP servers involves the directories discussed in [Preparation: create backup locations on disk](#)

Restoring the BlackBerry Dynamics components

On each GC or GP server in the cluster, follow these steps:

1. Stop the system as described in the GC console's online help topic **Maintenance & Troubleshooting > Stopping the GC and GP servers**.
2. Restore the original **C:\good** directory with the following command:
C:\>xcopy /E c:\backup\good* c:\good
3. When prompted to overwrite existing files, answer **A**. Examples:
Overwrite C:\good\gc.data (Yes/No/All)? A
Or
Overwrite C:\good\gps.properties (Yes/No/All)? A
4. Copy the installation directory from its backup to its original location. Example:**C:\>xcopy /E c:\backup\installdir* install_dir**
5. Restart the server as detailed in the GC console's online help topic "Starting the GC or GP Servers".
6. Repeat the above steps on every GC server machine and every GP server machine in the cluster.

Check registry after restore

If you restore a server, you might want to check the Windows Registry to update the recorded version number of the server software. Because restore is a manual process, with no installer, the Registry does not get updated unless you do so manually.

1. Access the system either via Remote Desktop or other means.
2. Open the Registry with **regedit** or some other tool.
3. Go to the appropriate key:
HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Good Control
HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\Good Proxy Server
4. Edit the key **DisplayVersion** to set its value to the version number of the server that you restored.
5. Save the change to the Registry.

Re-registering the GC and GP services in Windows

After you have restored your files from backup, if the GC or GP services are not registered on your Windows systems, follow the steps here to re-register them.

As administrator in a command window on all Windows machines running Good Control and Good Proxy::

- For all your GC servers, execute the following command:

```
<gc_install_folder>\Apache-tomcat-<version>\bin\Service install
```

- For all your GP servers, execute the following command:

```
<gp_install_folder>\bin\Register
```

Registering the restored GC and GP servers with the BlackBerry Dynamics NOC

Configure the GC and GP servers to register again with the BlackBerry Dynamics NOC, then restart the servers. The reason for re-registering is that to the NOC, a restored server appears like a new server with a new version of the BlackBerry Dynamics software. This version must be recorded by the NOC.

GC servers

1. Log into your database software as a system admin.
2. Execute the following statement to update the value of the **gwy.push.register** property in the **t_gc_properties** table so that at startup the GC server registers itself with the BlackBerry Dynamics NOC. Replace *hostname* with the name of the GC host machine.

```
update t_gc_properties set data_value='true' where data_key='gwy.push.register' and host_name='hostname';
```
3. On the GC host machine, restart the server, as detailed in the GC console's online help topic "Starting the GC or GP Servers".

GP servers

Changes to the property values described below cause the GP server to register itself with the BlackBerry Dynamics NOC and your GC servers at startup.

1. On the GP host machine, open the **C:\good\gps.properties** file in a text editor.
2. Find the **gps.product.registered** property and set its value to **false**.
3. Find the **gwy.push.register** property and set its value to **true**.
4. Save the file.
5. Restart the server, as detailed in the GC console's online help topic "Starting the GC or GP Servers".

Generalized process for comprehensive backup/restore of GD and GEMS

The majority of this document deals with the specifics of backing up and restoring Good Dynamics, but included here is guidance at a high level on the recommended schedule for backing up the following server components of Good Dynamics and Good Enterprise Messaging System (GEMS) servers:

- Good Control
- Good Proxy
- GEMS Connect
- GEMS EWS
- GEMS Docs

About loss of data

These guidelines do not deal with disaster recovery, per se, but with non-catastrophic, standard-operating-procedure backup and restoration of data.

There are two kinds of data loss:

1. Temporary loss of data that is recoverable from backups. This is the subject of these guidelines.
2. Catastrophic loss that backup cannot necessarily completely solve. For example, if the Good Control database is completely destroyed, you have lost the entire infrastructure to which you might be able to restore. Such catastrophic loss most likely requires a redeployment, and is not discussed in these guidelines.

Recommended backup schedule

Your organization itself must determine the necessary and sufficient minimum period between backups, because of your own intimate knowledge of the load on your deployed systems.

Gauge the necessity to back-up more frequently or less frequently, depending on how active your servers are, how active your users are, and how likely the possibility of an operational problem or catastrophic disaster:

- How much time can your company afford to lose in the event of a catastrophe?
- How often do you make changes to your servers that could be lost, such as application or other policy settings, new users, and so on?

We recommend you follow your normal SQL backup strategies, keeping in mind that a restore will also cause a loss of the data created between the time of your backup and the time of a restore.

The servers can be in full operation while you backup. There is no need to take a service offline.

Server components for backup

Note: Before backing up any component, be sure to stop its associated service.

For data maintained in the server's database (as indicated in the following table), follow the database vendor's recommended procedures for backup. Otherwise, follow your own procedures to backup the indicated directories.

Server/Component	Description	Physical Location	Effect of Loss
Good Control and database	Administrative interface to Good Dynamics, including application policies and device and	<ul style="list-style-type: none">• C:\good• your_install_directory where you installed the GC.• On your database server, the	Certain users might not be able to use the system. Application or other policies since the

Generalized process for comprehensive backup/restore of GD and GEMS

Server/Component	Description	Physical Location	Effect of Loss
	application management metadata	tablespace allocated to GC.	previous backup would not be available.
Good Proxy	Communication with internal and external resources	<ul style="list-style-type: none"> • C:\good • your_install_directory where you installed the GP. 	End-user communications would be disrupted.
GEMS	Core GEMS service and configuration files	<ul style="list-style-type: none"> • E:\GEMS\Good Server Distribution • your_install directory where you installed GEMS. • On your database server, the table space allocated to GEMS. 	Users would not be able to use the system.
GEMS Connect	Users' contacts, offline messages	<ul style="list-style-type: none"> • Data are maintained in the GEMS database. • Binary programs and log files (which are useful in troubleshooting) are maintained in C:\Program Files\Good Technology\Good Enterprise Mobility Server 	The data in the Description column would be lost.
GEMS EWS	VIP settings, Follow Me settings, subscriptions for streaming notifications	<ul style="list-style-type: none"> • Data are maintained in the GEMS database. • Binary programs and logfiles (which are useful in troubleshooting) are maintained in C:\Program Files\Good Technology\Good Enterprise Mobility Server 	The data in the Description column would be lost.
GEMS Docs	All policies, pointers to all user-created shares, end-users' custom settings in applications	<ul style="list-style-type: none"> • Data are maintained in the database. • Logfiles (which are useful in troubleshooting) are maintained in C:\Program Files\Good Technology\Good Enterprise Mobility Server 	The data in the Description column would be lost. Data in shares is not lost, but pointers to them in the client are.

Restore procedures

Restore requires no configuration changes. Normal SQL or file system commands can be used.

Processes for GC and GP

1. Restore the database tablespace you backed up.
2. On every GC server machine and every GP server in the cluster, restore every disk directory you backed up.
3. As database administrator, log into your database.
4. Execute the following statement to update the value of the gwy.push.register property in the t_gc_properties table so that at startup the GC server registers itself with the GD NOC. Replace hostname with the name of the GC host machine.

```
update t_gc_properties set data_value='true' where data_key='gwy.push.register' and host_name='hostname';
```

5. On the GC host machine, restart the GC service, as detailed in the GC console's online help topic Maintenance & Troubleshooting > Starting the GC or GP Servers.

Process for GEMS

1. Restore the database tablespace you backed up.
2. On every GEMS server, restore every disk directory that you backed up.

Process for GEMS Connect

1. These data are stored in the GEMS database. See [Process for GEMS](#).
2. The binary and other files can be restored separately into their original location on disk.

Process for GEMS EWS

1. These data are stored in the GEMS database. See [Process for GEMS](#).
2. After you have restored and restarted the EWS service:
 1. Log in to the system.
 2. Navigate to Dashboard > Mail > Microsoft Exchange.
 3. Save the EWS service account.

Process for GEMS Docs

1. These data are stored in the GEMS database. See [Process for GEMS](#).
2. The log files can be restored separately, if you so desire, but they are not critical.