



Software Upgrade Test Utility

FlashSystem 840, FlashSystem V840, and FlashSystem 900

Utility version 1.34 release notes

August 15, 2017

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1.0 Introduction

The software upgrade test utility is run prior to initiating a Concurrent Code Upgrade (CCU) to check the system for issues which might prevent a successful update. If any issues are found, the upgrade utility presents a warning message with details of the issue and the methods to resolve them. It is recommended that the upgrade is not started until these issues are resolved.

Note: For firmware versions 1.2.0.11 and later, the test utility must be run before proceeding with the upgrade. For earlier firmware versions, installing and running the utility is optional, but highly recommended.

2.0 Applicable products

The following IBM® FlashSystem™ products use this upgrade test utility:

- IBM FlashSystem 840, machine types and models (MTM) 9840-AE1 and 9843-AE1
- IBM FlashSystem 900, machine types and models 9840-AE2 and 9843-AE2
- IBM FlashSystem V840, MTMs 9846-AE1 and 9848-AE1

3.0 Latest changes

A check has been added to prevent upgrade on systems with batteries that are not online. This includes batteries that are ‘offline’ and ‘degraded.’ See the following link for more information:

<http://www.ibm.com/support/docview.wss?uid=ssg1S1010516>. The update test utility also now accounts for a lack of a flashcard spare on RAID 0 systems.

4.0 Using the utility

The upgrade test utility can be installed and run using either the Command-line Interface (CLI) or the Graphical User Interface (GUI). Users are strongly recommended to use the GUI to upgrade. Instructions on running the utility with or without an upgrade are provided on the next page.

Upgrade information and instructions are provided in product release notes. Refer to the release notes for the specific firmware version you are upgrading to. For general instructions on performing upgrades, refer to the IBM FlashSystem Knowledge Center using the following URL:

<http://www.ibm.com/support/knowledgecenter/>

From this link, you can access the appropriate FlashSystem page through one of the following paths:
System Storage → Flash Storage → Flash high availability systems → IBM FlashSystem 840 → Upgrading
System Storage → Flash Storage → Flash high availability systems → IBM FlashSystem 900 → Upgrading
System Storage → Flash Storage → Flash high availability systems → IBM FlashSystem V840 → Upgrading

4.1 Running the test utility

The test utility can be run through the GUI without starting an upgrade. Simply navigate to **Settings** → **System** → **Update System** and select **Test Only**. Provide the file for the test utility, enter a supported firmware version that you plan to move to, and select **Test**.

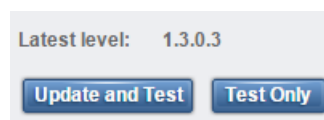


Figure 1. Running the test utility without an upgrade

4.2 Upgrading using the GUI

To run the upgrade test utility using the GUI, follow these steps:

1. Navigate to **Settings**→**System**→**Update System** as shown in Figure 1 below and select **Update**.

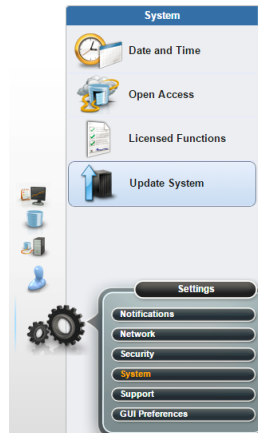


Figure 2. Navigating to the Update System page in the management GUI

2. Use the folder icon and browse to select the file for the upgrade test utility. Select the appropriate upgrade file before clicking Update, as shown below in Figure 2.

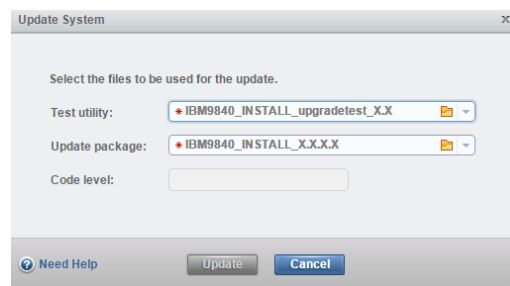


Figure 3. Selecting files to run the upgrade utility

3. Wait for the upgrade utility to run. If there are any issues with the system that might cause the upgrade to fail, a message appears prompting you to go to the Update System page and read more about the issues the upgrade utility found, as seen in Figure 3 below. Click **Go to Update System** and then click on **Read more** to view details on the issues, including how to resolve them. Correct any issues before continuing with the upgrade.

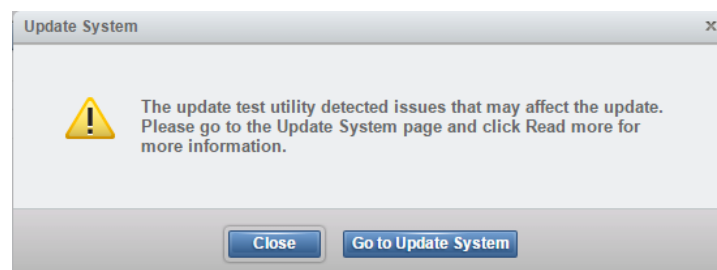


Figure 4. Viewing details of issues remaining on the system before upgrading

4.3 Upgrading using the CLI

To run the upgrade test utility using the CLI, follow these steps:

1. Copy the test utility file to the `/upgrade` directory on the system's configuration node using the management IP address from an external location. Use one of the following methods:
 - Using Linux, issue the following command:

```
scp upgrade_file username@management_IP:/upgrade/
```
 - Using Windows, issue the following command:

```
pscp upgrade_file username@management_IP:/upgrade/
```
2. Issue the following command to install the upgrade utility:

```
applysoftware -file TMS9840_INSTALL_svcupgradetest_1.34
```
3. Once a success message is received for installing the utility, issue the following command to run the upgrade utility using the firmware version number (1.x.x.x) of the firmware you are upgrading to:

```
svcupgradetest -v 1.x.x.x
```

Once the utility has finished running, the utility alerts you of any errors with your system that may prevent the upgrade from completing successfully. Recommended actions are given to resolve any issues existing with the system. Resolve any issues before proceeding with the upgrade.

5.0 Update history

The following describes the updates made to past versions of the upgrade utility:

- Version 1.29 - A check has been added to prevent systems that have an array, but no spare drive from upgrading. See Section 5.0 for changes made to previous versions.
- Version 1.28 - A check has been added to prevent upgrades for 1.4.x systems with encryption keys in the prepared state. These keys must be committed or canceled before proceeding with the upgrade.
- Version 1.24 - A check has been added to present users with firmware levels below 1.2.0.12 with the message “error in verifying signature of file.”
- Version 1.23 - A check has been added to prevent an upgrade for iSCSI systems to firmware version 1.4.4.2 due to a known issue.
- Version 1.22 - A check has been added to prevent an upgrade to a version below 1.2.1.9 for users with Pass 5 systems.
- Version 1.20 - A check has been added to ensure that the maximum number of host ports used does not exceed 32. If host ports used exceeds this number, the user will not be able to proceed with the upgrade.
- Version 1.18:
 - A “Test only” option is now available through the GUI which allows users to run the test utility without upgrading.
 - Users with the user name “service” are warned that they will not have access to this user if they upgrade and should take action to create a new user with a different name.
- Version 1.17 - Reporting has been improved to include all errors and warnings for all issues found in the same report.
- Version 1.14:
 - The utility now verifies that Call home is not only configured, but also enabled. If both of these things are not done, a warning is issued.
 - Call home messages are sent when the utility starts, gives a warning, fails, or finishes successfully.
 - The utility now verifies that an array is present and fully online.



- Version 1.8 - The utility verifies that the user is upgrading from one of the four supported versions when upgrading to a firmware version later than 1.2.0.12. The four supported levels are 1.1.3.7, 1.1.3.8, 1.2.0.11, and 1.2.0.12.
- Version 1.6 - Updated utility verifies whether midplane paths have been disabled and that the system is properly encrypted. Additionally, the utility now overwrites a previously installed utility, if necessary.
- Version 1.5 - Updated utility creates a file upon successfully completing, enabling the CCL upgrade to start.
- Version 1.4 - Updated utility verifies that the Call Home notification feature is configured on the system. A warning is issued if the Call Home feature is not configured.
- Version 1.3 - Updated utility checks for a potential canister power-off issue during CCL.
- Version 1.2 - Updated utility runs a CPLD diagnostic.
- Version 1.1 - Updated utility runs a diagnostic on PSUs.
- Version 1.0 - Runs a diagnostic on fans, batteries, and flashcards.

6.0 Contact information

To contact IBM Support, call 1-800-IBM-SERV (1-800-426-7378). To find contact information for a specific region, visit the IBM directory of worldwide contacts at <http://www.ibm.com/planetwide/>.

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