AUTHORIZED DOCUMENTATION

Upgrade Guide

Novell® PlateSpin Forge®

2.5

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About This Guide

This guide provides information about upgrading your PlateSpin Forge® appliance version 2.5 product.

Audience

This documentation is intended for data center managers, and IT or operations administrators. It assumes that users of the product have the following background:

- General understanding of network operating environments and systems architecture.
- General virtualization knowledge.
- Understanding of disaster recovery principles.

The contents of this guide are of interest to IT personnel, data center system administrators, or any other persons who are responsible for the deployment of hardware in your environment.

PlateSpin Forge 2.5 hardware appliance administrators and users should refer to the *PlateSpin Forge 2.5 User Guide* for information on the day-to-day functionality of the unit.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation, or submit your comments through the Novell Documentation Feedback site (http://www.novell.com/documentation/feedback.html).

Documentation Updates

For the most recent version of this text, visit the PlateSpin Forge version 2.5 Web site (http://www.novell.com/documentation/platespin_forge_25/).

Additional Documentation

This guide is part of the PlateSpin Forge® documentation set. Below is a complete list of the set:

PlateSpin Forge 2.5 Release Notes	Provides late-breaking information, as well as information about known issues and suggested workarounds.
PlateSpin Forge 2.5 Getting Started Guide	Provides information about installing the product and performing the initial configuration.
PlateSpin Forge 2.5 User Guide	Provides information about using the product in your workload protection projects.
PlateSpin Forge 2.5 Upgrade Guide	Provides information on upgrading the forge unit, both from downloaded files and using a PlateSpin Forge USB stick.
PlateSpin Forge 2.5 Integrated Help	The User Guide in compiled HTML help format, integrated with the product.

PlateSpin Forge 2.5 Online Documentation	All product documentation in WebHelp format for browser-based access over the Internet. This distribution should contain the latest updates at all times.

Additional Resources

We encourage you to use the following additional resources on the Web:

- PlateSpin User Forum (http://forum.platespin.com): A Web-based community with a variety of discussion topics.
- PlateSpin Knowledge Base (http://support.platespin.com/kb2/): A collection of in-depth technical articles.

Technical Support

- Telephone (North America): +1-877-528-3774 (1 87 PlateSpin)
- Telephone (global): +1-416-203-4799
- E-mail: support@platespin.com

You can also visit the PlateSpin Technical Support Web site (http://www.platespin.com/support/).

Documentation Conventions

In Novell documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

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Upgrading Your Forge Appliance

1

This document provides information about upgrading your PlateSpin Forge® appliance from version 1.1, 1.2.0 or 1.2.1. to version 2.5.

For information about functional enhancements and bug fixes included in this release, see the Release Notes document.

IMPORTANT: User-uploaded drivers for failback are not preserved during an upgrade. Any such drivers need to be uploaded again after the upgrade .

- Section 1.1, “Requirements,” on page 9
- Section 1.2, “Sequential Upgrade Tasks,” on page 9
- Section 1.3, “Phase 1: Preparing Forge for the Upgrade,” on page 10
- Section 1.4, “Phase 2: Backing Up the Forge Management VM,” on page 11
- Section 1.5, “Phase 3: Upgrading Forge Software,” on page 12
- Section 1.6, “Phase 4: Verifying the Forge Upgrade,” on page 12
- Section 1.7, “Phase 5: Upgrading Portability Suite Client Software,” on page 13
- Section 1.8, “Appliance Host (ESX) Upgrade,” on page 14

1.1 Requirements

To upgrade your Forge appliance, you will require:

- `ForgeSetup.exe` installer executable file
- VMware* ESX 3.5 V4 CD

NOTE: If the Forge Appliance doesn’t have Internet access, you will also need to download the Microsoft* .NET Framework 2.0 Service Pack 2 (http://www.microsoft.com/downloads/details.aspx?familyid=5B2C0358-915B-4EB5-9B1D-10E506DA9D0F&displaylang=en) executable and have it available to the Forge appliance (network share, CD, USB stick, etc.) for the upgrade.

1.2 Sequential Upgrade Tasks

To upgrade your Forge appliance, you need to perform the following tasks in order:

1. Ensure that no replications are currently running or are scheduled to run during the upgrade. For more information, see Section 1.3, “Phase 1: Preparing Forge for the Upgrade,” on page 10.
2. Save the current state of the management VM. For more information, see Section 1.4, “Phase 2: Backing Up the Forge Management VM,” on page 11.
3. Copy and run the required setup executable locally within the Forge Management VM. For more information, see Section 1.5, “Phase 3: Upgrading Forge Software,” on page 12.

4. Verify proper operation of the appliance after the upgrade. For more information, see Section 1.6, “Phase 4: Verifying the Forge Upgrade,” on page 12.
5. Upgrade instances of the Portability Suite Client software. For more information, see Section 1.7, “Phase 5: Upgrading Portability Suite Client Software,” on page 13.

NOTE: PlateSpin PowerConvert is now PlateSpin Portability Suite. Prior to upgrading, instances of PowerConvert need to be upgraded to the current version of Portability Suite. For failback, Portability Suite is no longer required, as this functionality is now built-in to the Forge appliance, but it is still required for driver management.

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6. Upgrade BBT contracts (reboot required).

1.2.1 Before Starting the Upgrade

During the upgrade, you will need:

- A Web browser supported by the Forge appliance. (see “” in the *PlateSpin Forge User Guide*).
- IP addresses and appropriate credentials for:
  - The Forge appliance (Forge Web Interface and Forge Management VM)
  - The Forge Appliance Host (VMware ESX server)
- The VMware Infrastructure Client (VIC). See Section 1.2.2, “Installing the VMware Infrastructure Client,” on page 10.
- Everything from “Requirements” on page 9.

1.2.2 Installing the VMware Infrastructure Client

To download and install the VIC, follow these steps:

1. To open a Web browser and navigate to the VMware ESX Server’s Welcome page: in your browser’s Internet address bar, type `http://` followed by the ESX Server’s IP address, then press Enter.
2. Click the *Download VMware Infrastructure Client* link, then follow the instructions to download and install the software.

1.3 Phase 1: Preparing Forge for the Upgrade

This phase involves pausing all scheduled replications of protected workloads and waiting for running replications to complete.

1. In the Forge Web Interface, click *Workloads*.
2. To pause all active replication schedules, select a workload and click *Pause Schedule*.
3. Wait for replications that are currently in progress to complete, then ensure that the replication status of protected workloads is *idle* in the Replication Status column.

This completes Phase 1.

1.4 Phase 2: Backing Up the Forge Management VM

This phase involves powering off and taking a snapshot of the Forge Management VM. This enables you to revert to a previous state of the Forge Management VM, if required.

1. Click *Start* > *Programs* > *VMware* > *VMware Infrastructure Client*.

   The VMware Infrastructure Client is started and the VIC login is displayed.

2. Type your Forge Appliance Host (VMware ESX Server) credentials and log in.

   The VIC interface is displayed.

3. In the VIC Inventory panel at the left, click the Forge Management VM (ForgeManagementConsole), and in the main Information panel click the Console tab.

   The management VM Windows interface is displayed.

4. If the VM is locked:

   4a Click inside the VM window.

   4b Press Ctrl+Alt+Insert.

   4c Type your Forge Management VM credentials.

   4d Click *OK*.

5. Power off the VM:

   5a In the Forge Management VM virtual Windows environment, click *Start* > *Shutdown*.

   5b In the Shut Down Window, type a comment about the shutdown operation (e.g., “upgrade”)

   5c Click *OK*.

6. For Forge 1.x appliances, disable Independent mode for VM Hard Disk 2:

   6a In the VIC Inventory panel at the left, right-click the Forge Management VM (ForgeManagementConsole) and select *Edit Settings*.

   The Virtual Machine Properties window is displayed.

   6b On the Hardware tab, click *Hard Disk 2*.

   6c At the right, clear the *Independent* check box.

7. Take a snapshot of the Forge Management VM:

   7a In the VIC Inventory panel at the left, right-click the Forge Management VM (ForgeManagementConsole) and select *Snapshot* > *Take Snapshot*.

   7b In the Take Virtual Machine Snapshot window, type a name for the snapshot and an optional comment.

   7c Click *OK*.

8. Power on the management VM: in the VIC Inventory panel at the left, right-click the Forge Management VM (ForgeManagementConsole) and select *Power On*.

This completes Phase 2.

1.5 Phase 3: Upgrading Forge Software

This phase involves updating Windows, either with or without an Internet connection, and then copying and running the Forge setup executable locally within the Forge Management VM.

1. In the VIC Inventory panel at the left, click the Forge Management VM (ForgeManagementConsole), and in the main Information panel click the Console tab.

   The management VM Windows interface is displayed.

2. If the VM is locked:

   2a Click inside the VM window.

   2b Press Ctrl+Alt+Insert.

   2c Type your Forge Management VM credentials.

   2d Click *OK*.

3. For systems with an Internet connection:

   3a Click *Start* > *Microsoft Update*.

   A browser window is opened with the Microsoft Update web page displayed.

   3b Click *Express*.

   The Microsoft Update site will check to see which updates your system requires.

   3c When the results of the check are displayed, click *Install Updates*.

   Your system is updated.

4. For systems without an Internet connection:

   4a Transfer the `Microsoft .NET Framework 2.0 Service Pack 2` file you downloaded in "Requirements" on page 9 to the Forge Management VM.

   4b Run the downloaded file to update Windows.

5. In the VM, open a Windows Explorer window (e.g. click *Start* > *Programs* > *Accessories* > *Windows Explorer*) and browse to `ForgeSetup.exe`. Copy the file to a directory in the VM's file system.

6. Install the Forge software upgrade: double-click the `ForgeSetup.exe` file and follow the on-screen instructions.

This completes Phase 3.

1.6 Phase 4: Verifying the Forge Upgrade

This phase involves verifying proper operation of the appliance and removing the VM snapshot created for backup. Removal of the VM snapshot is strongly recommended because of its potential performance impact on Forge.

1. In the Forge Web Interface, click *Workloads*.
2. Resume all paused replication schedules: select a workload and click *Resume Schedule*.

NOTE: For BBT workloads, block-based components should also be upgraded as needed. Click a workload on the Workloads page to display the protection details for that workload. If Forge detects that the block-based tools need to be upgraded, an *Upgrade BBT Tools* button is displayed at the bottom of the page. Click it to upgrade the tools. You can also upgrade the tools, as needed, from the Tasks page. Upgrading the BBT Tools will FORCE A REBOOT.

3 Verify that replications are working properly. You can either wait for one to complete as scheduled or run one by clicking *Run Replication*. Check the status of replications in the Replication Status column.

4 Remove the management VM snapshot that you took in Phase 2. It is recommended that you pause replication jobs during this step as described in Section 1.3, "Phase 1: Preparing Forge for the Upgrade," on page 10.

4a In the VIC Inventory panel at the left, right-click the Forge Management VM (ForgeManagementConsole), then select *Snapshot* > *Snapshot Manager*.

4b In the Snapshots window, click to highlight the backup snapshot you created and named in Phase 2, then click *Delete*. When prompted to confirm, click *Yes*.

4c Click *Close* to close the snapshot manager.

Depending on the size of the snapshot, the deletion might take up to an hour and might appear unresponsive at around 95% of completion. Please wait for the process to complete.

4d Resume all paused replications as described in Step 2.

This completes Phase 4.

1.7 Phase 5: Upgrading Portability Suite Client Software

This phase involves downloading and installing software to upgrade instances of the PlateSpin Portability Suite Client (thick client) software, which is required for driver management.

1 In the Forge Web Interface, click *About*.

2 On the About page, locate *Portability Suite Client* and click the *Click to download* link next to it.

3 At the browser's prompt, select to download (save) the file.

4 Manually uninstall older versions of the Portability Suite Client.

5 Use the downloaded executable to install new instances of Portability Suite Client software. This installs Portability Suite Client software version 8.1.0.6866.

This completes Phase 5 and the Forge upgrade procedure.

1.8 Appliance Host (ESX) Upgrade

NOTE: To upgrade the Appliance Host (ESX) you need the VMware ESX 3.5 Update 4 ISO.

1. Make sure all protections are paused and all VMs are shutdown, including the Forge Management VM. See Section 1.3, "Phase 1: Preparing Forge for the Upgrade," on page 10 and Section 1.4, "Phase 2: Backing Up the Forge Management VM," on page 11 for more information.
2. If your Forge appliance is equipped with DRAC, proceed to "Preparing to Upgrade DRAC-equipped Appliance Hosts" on page 14. If your Forge appliance does not have DRAC, skip to "Preparing to Upgrade Appliance Hosts Without DRAC" on page 14.

1.8.1 Preparing to Upgrade DRAC-equipped Appliance Hosts

1. Connect to the DRAC by opening Internet Explorer and entering the DRAC IP Address in the form `https://DRAC_IP`.
2. Log in using the username `root` and the password `calvin`.
3. Click the Media tab at the top of the page and then click *Configuration* under the tabs.
4. Click the *Attach Virtual Media* check box and then click *Apply Changes*.
5. Click *Virtual Media* under the tabs.
6. Under *CD/DVD-ROM Drive* select *ISO Image File*.
7. Click *Browse* and locate the upgrade ISO.
8. Select the ISO image and click *Connect* at the bottom of the page.

   Skip to "Performing the Appliance Host Upgrade" on page 14.

1.8.2 Preparing to Upgrade Appliance Hosts Without DRAC

1. Burn the VMware ESX 3.5 Update 4 ISO to a CD.
2. Insert the Upgrade CD you just created into the Forge Appliance CD-ROM drive and open the console.

   Proceed to "Performing the Appliance Host Upgrade" on page 14.

1.8.3 Performing the Appliance Host Upgrade

1. Click the Console tab at the top of the page and then click *Connect* at the bottom of the page.

   The Forge getty is displayed.
2. Press Alt+F2 to switch to an ESX login prompt and log in as `root`.
3. Enter the command `reboot` and hit Enter.

   The ESX server will perform a soft restart and switch back to the Forge getty.
4. When the Forge appliance reboots, press F11.

   For DRAC-equipped Appliance Hosts, proceed to Step 5. For Appliance Hosts without DRAC, skip to Step 6.
5. At the Boot Device Menu, select `VIRTUAL CDROM`.

This will boot the Forge appliance from the ISO you attached in "Preparing to Upgrade DRAC-equipped Appliance Hosts" on page 14.

6 At the Boot Device Menu, select `IDE CD ROM device`.

This will boot the Forge appliance from the CD you burned and inserted in the Forge appliance in "Preparing to Upgrade Appliance Hosts Without DRAC" on page 14.

7 When the ESX installation screen is displayed, press Enter.

The graphical interface is displayed.

8 When prompted, skip the CD Media Test.

9 When the ESX 3.5 Installer screen is displayed, click *Next*.

10 Select the appropriate keyboard type and click *Next*.

11 Click *Next* at the mouse selection screen.

12 Select *Upgrade* when prompted for the installation type.

13 Accept the license agreement.

14 In the Advanced Option screen, click *Next*.

IMPORTANT: Do not change the bootloader configuration.

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15 In the About to Upgrade screen, click *Next*.

16 When the upgrade is complete, click *Finish*.

The Forge appliance will reboot. Do not touch the keyboard until the reboot is complete.

17 For Appliance Hosts without DRAC, remove the CD from the Forge appliance CD-ROM drive. For DRAC-equipped Appliance Hosts, proceed to "DRAC-equipped Appliance Host Upgrade Cleanup" on page 15.

1.8.4 DRAC-equipped Appliance Host Upgrade Cleanup

1 Close the DRAC console window.

2 Switch back to the Internet Explorer window displaying the DRAC page you connected to in Section 1.8.1, "Preparing to Upgrade DRAC-equipped Appliance Hosts," on page 14 and click the Console tab at the top of the page. Verify that the window has timed out.

3 Log in using the username `root` and the password `calvin`.

4 Click the Media tab and then click *Disconnect* at the bottom of the page to disconnect the ISO from the DRAC.

5 Click *Configuration* under the tabs.

6 Unselect the *Attach Virtual Media* check box and click *Apply Changes* at the bottom of the page.

7 Click *Log Out* at the top right corner of the window and close the Internet Explorer window.