Dell FluidFS Version 5.0

FS8600 Appliance

Firmware Update Guide

Notes, Cautions, and Warnings

NOTE: A NOTE indicates important information that helps you make better use of your computer.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

Contents

About This Guide

The *Dell FluidFS Version 5.0 FS8600 Appliance Firmware Update Guide* provides information about updating the software on a Dell FS8600 FluidFS cluster. The document describes how to update the FluidFS software from version 4.0 to version 5.0 and also includes a list of related documentation.

Revision History

Document number: 680-112-001

Table 1. Revision History

Revision	Date	Description
A	January 2016	Initial release of FluidFS version 5.0

Related Documentation

The following documents comprise the core Dell FluidFS for FS8600 Appliance documentation set. The documents are sorted by intended audience.

Documents Intended for Dell Customers

- *Dell FluidFS Version 5.0 FS8600 Appliance Administrator's Guide* – Provides information about using the Enterprise Manager software to manage FS8600 appliances, and provides information about FS8600 appliance monitoring and troubleshooting.
- *Dell FluidFS Version 5.0 FS8600 Appliance CLI Reference Guide* – Provides information about the FS8600 appliance command-line interface.
- *Dell FluidFS Version 5.0 Release Notes* – Provide information about FluidFS releases, including new features and enhancements, open issues, and resolved issues.
- *Dell Enterprise Manager Installation Guide* – Provides information about installing and configuring the Enterprise Manager Data Collector and Enterprise Manager Client.
- *Dell Enterprise Manager Administrator's Guide* – Describes how to use the Enterprise Manager software to manage Storage Center and FS8600 appliances.
- *Dell Enterprise Manager Release Notes* – Provides information about Enterprise Manager releases, including new features and enhancements, open issues, and resolved issues.

Documents Intended for Dell Installers and Certified Business Partners

- *Dell FluidFS Version 5.0 FS8600 Appliance Pre-Deployment Requirements* – Provides a checklist that assists in preparing to deploy an FS8600 appliance before a Dell installer or certified business partner arrives onsite to perform an FS8600 appliance installation.
- *Dell FluidFS Version 5.0 FS8600 Appliance Deployment Guide* – Provides information about deploying an FS8600 appliance, including cabling the appliance to one or more Storage Centers and the network, and deploying the appliance using the Enterprise Manager software.

- *Dell FS8600 Appliance Service Guide* – Provides information about FS8600 appliance hardware, system component replacement, and system troubleshooting.
- *Dell NAS Appliance SFP+ Replacement Procedure* – Provides information about replacing SFP+ transceivers on an inactive system.
- *Dell FluidFS FS8600 Appliance 1Gb to 10Gb Upgrade Procedure* – Provides information about upgrading a Fibre Channel FS8600 appliance from 1Gb Ethernet client connectivity to 10Gb Ethernet client connectivity.

Updating FluidFS Software on FS8600 Appliances

This section provides information that you need to update the FluidFS software on your FS8600 cluster.

The section contains the following topics:

- Supported update paths
- Update considerations
- Pre-update tasks
- Update instructions
- Post-update tasks

Supported Update Paths

For the supported update paths to FluidFS version 5.0, see the *Dell Fluid File System Version 5 Support Matrix*. This matrix is available from dell.com/support.

Update Considerations

Review the information in the following table before updating to FluidFS version 5.0

Feature	Version 5.0
Internal storage reservation	FluidFS v5 increases the internal storage reservation by 10 GB to provide better support for events, monitoring data, and service-packs repository.
Replication ports	FluidFS v5 supports single-port replication. Administrators can close all ports except one (10560 or 3260).

Performing Pre-Update Tasks

Complete the tasks in the following list before updating to FluidFS version 5.0.

- Change the FluidFS cluster name and NetBIOS name to match.
  Make sure the cluster name contains fewer than 15 characters and does not begin with a number.
- Delete local user names that have a period as the last character. Recreate these accounts with different names.
- Stop all NDMP backup sessions.
  If an NDMP backup session is in progress during the update, the temporary NDMP snapshot remains in place.
- Open additional ports on your firewarll to allow replication between replication partners.
- Make sure SMB shares and NFS exports have only alphanumeric characters in the **Comment** field.
- Make sure NAS volumes do not have the names in the following list. These names are reserved for internal FluidFS cluster functions.

- .
- ..
- .snapshots
- acl_stream
- cifs
- smb
- int_mnt
- unified
- Any name starting with locker_
- Make sure local groups do not have the names in the following list. These names are reserved for internal FluidFS cluster functions.

  - Backup Operators
  - Local Users
  - nobody_group
  - Users
- Make sure all the defined DNS servers are accessible using ping and dig (DNS lookup utility).
- Make sure the Active Directory domain controller is accessible using ping, and that the FluidFS cluster system time is in sync with the Active Directory time.
- Make sure the NAS controllers are running, attached, and accessible using ping, SSH, and rsync.

  Although the minimum requirement to update is that at least one NAS controller in each NAS appliance must be running, Dell recommends that all NAS controllers be running.

Updating From FluidFS Version 4.0 to 5.0

Use the procedure in this section to update a Dell FS8600 FluidFS cluster from FluidFS version 4.0 to 5.0.

Prerequisites

- Update to Enterprise Manager 2015 R3 or later. Dell recommends using the latest Enterprise Manager version. For more information about updating Enterprise Manager, see the *Dell Enterprise Manager Release Notes*.
- The Storage Center OS must be at version 6.5.10 or later before you begin the update procedure. For more information about updating the Storage Center OS, see the *Storage Center Software Update Guide*.
- Some FluidFS version 4.0 maintenance releases cannot be updated directly to FluidFS version 5.0. Make sure the FluidFS cluster is at a version that can be updated to FluidFS version 5.0.
- Perform the pre-update tasks as described in [Performing Pre-Update Tasks](#).
- When a service pack is installed, the NAS controllers reboot during the installation process. Rebooting might cause interruptions in SMB and NFS client connections. Therefore, Dell recommends installing service packs during a maintenance window.
- Contact Dell Technical Support to obtain the latest FluidFS version 5.0 service pack. Do not modify the file name of the service pack.

Download and Install the Service Pack

1. Download the service pack using one of the following methods:

   - Make sure that EM and SCOS are both running supported versions, and then contact Dell Technical Support to enable the upgrade rule in SupportAssist for your FS8600 cluster. After the

rule is enabled, use Enterprise Manager to automatically download the service pack from SupportAssist. Right-click the cluster name, then select **Actions → Check for Upgrade**.

- Request an FTP link from Dell Technical Support, manually download the service pack, and use FTP to upload the service pack to the FS8600 cluster.

    NOTE: When you upload a FluidFS ISO file to the FTP folder, it will disappear from the FTP folder after a few minutes. The file is being extracted and moved to a different location prior to applying the update.

2. Install the FluidFS version 5.0 service pack.

    CAUTION: The installation process for the service pack cannot be reversed. After the service pack is installed, the system cannot revert to the previous version.

    a. After the service pack is uploaded to the system, it is displayed in Enterprise Manager as available, but not installed.

    b. Right-click the service pack to install it.

Performing Post-Update Tasks

After you update from FluidFS version 4.0 to version 5.0, complete the tasks in the following list.

- If you disabled secured management before the update, reenable this feature.
- If you plan to enable data reduction, make sure that you allocate sufficient space for the NAS pool.
- If antivirus scanning is enabled, configure the file-size threshold and whether to allow or deny access to files that are larger than this threshold.
- (Optional) Enable NFS protocol version 4.
- (Optional) Enable physical isolation of management traffic.
- (Optional) Enable remote KVM.