RAID Controller Firmware Upgrade Instructions for the Cisco WAE-7341, 7371, and 674

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This document describes how to upgrade the RAID controller firmware in a Cisco Wide Area Application Engine (WAE) 7371, 7341, and 674 appliance. This document includes the following sections:

- Firmware Upgrade Overview
- Checking the RAID Controller Firmware Version
- Installing the RAID Controller Firmware
- Firmware Version 15427 Resolved Caveats
- Firmware Version 15427 Open Caveats
- Related Documentation
- Obtaining Documentation and Submitting a Service Request

Firmware Upgrade Overview

This section describes the general steps required to upgrade the RAID controller firmware in your Cisco WAE device. To upgrade the firmware, follow these steps:

Step 1 Check the existing RAID controller firmware version installed in your WAE device. See the "Checking the RAID Controller Firmware Version" section on page 2.

Step 2 Download and install the RAID controller firmware in your WAE device, and then reboot the WAE. See the "Installing the RAID Controller Firmware" section on page 3.

Step 3 Reboot the WAE device.

Step 4 Verify the new firmware version is installed.

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Checking the RAID Controller Firmware Version

This section describes how to check the RAID controller firmware version installed in your WAE device, and contains the following sections:

- Checking the RAID Controller Firmware Version Using Cisco WAAS Software, page 2
- Checking the RAID Controller Firmware Version Using Cisco ACNS Software, page 3

Checking the RAID Controller Firmware Version Using Cisco WAAS Software

To check the RAID controller firmware version using Cisco Wide Area Application Services (WAAS) software, follow these steps:

Step 1 Log into the WAE device using the command-line interface (CLI).

Step 2 Enter the **show disks tech-support** EXEC command to display system information.

Step 3 Observe the current installed RAID controller firmware version number in the Controller Version Information section of the report. For example:

```
wae# show disks tech-support

Controllers found: 1


---------------------------------------------------------------------
Controller information
---------------------------------------------------------------------
   Controller Status              : Okay
   Channel description            : SAS/SATA
   Controller Model               : IBM ServeRAID 8k
   Controller Serial Number       : 40453F0
   Physical Slot                  : 0
   Installed memory               : 256 MB
   Copyback                       : Disabled
   Data scrubbing                 : Disabled
   Defunct disk drive count       : 0
   Logical drives/Offline/Critical : 1/0/0
   --------------------------------------------------
   Controller Version Information
   --------------------------------------------------
   BIOS                           : 5.2-0 (15418)
   Firmware                       : 5.2-0 (15418)
   Driver                         : 1.1-5 (2449)
   Boot Flash                     : 5.1-0 (15418)
   --------------------------------------------------
--More--
```

The firmware version is displayed on the Firmware line of the report. The following example shows that the firmware version is 5.2-0 (15418):

```
   Firmware                       : 5.2-0 (15418)
```

Checking the RAID Controller Firmware Version Using Cisco ACNS Software

To check the RAID controller firmware version using Cisco Application and Content Networking System (ACNS) Software, follow these steps:

Step 1   Log into the WAE device using the command-line interface (CLI).

Step 2   Enter the **show disks smart-info details** command to display system information.

Step 3   Observe the current installed RAID controller firmware version number in the report. For example:

```
ContentEngine# show disks SMART-info details
Disk 01:
========
Device Model:     HITACHI_DK23BA-20
Serial Number:    111111
Firmware Version: 5.2-0 (15418)
SMART support is: Available - device has SMART capability.
SMART support is: Enabled
SMART overall-health self-assessment test result: PASSED
Vendor Specific SMART Attributes with Thresholds:
ID# ATTRIBUTE_NAME          FLAG     VALUE WORST THRESH TYPE      WHEN_FAILED RAW_VALUE
  1 Raw_Read_Error_Rate     0x000d   100   083   050    Pre-fail   -          677
  3 Spin_Up_Time            0x0007   100   100   050    Pre-fail   -          0
  4 Start_Stop_Count        0x0032   100   100   050    Old_age    -          249
  5 Reallocated_Sector_Ct   0x0033   099   099   010    Pre-fail   -          30
  <cr>
```

The firmware version is displayed on the Firmware Version line of the report. The following example shows that the firmware version is 5.2-0 (15418):

```
Firmware Version: 5.2-0 (15418)
```

Installing the RAID Controller Firmware

This section describes how to download and install a new version of RAID controller firmware into your WAE device.

To download and install the firmware from a remote server, follow these steps:

Step 1   Log into the WAE device using the CLI.

Step 2   Enter one of the following EXEC commands to download the firmware image from a remote server and install the image on your WAE device:

- **copy ftp install** — Use this command if you are downloading the firmware image file from an FTP server.

- **copy http install** — Use this command if you are downloading the firmware image file from an HTTP server.

The following example downloads the RAID controller firmware file L4_15427_FIRMWARE.bin from the mywaas/downloads/ directory on the myserver FTP server:

```
wae# copy ftp install myserver mywaas/downloads L4_15427_FIRMWARE.bin
```

Step 3   Observe the progress of the download.

For example:

```
WAE# copy ftp install myserver mywaas/downloads L4_15427_FIRMWARE.bin
Enter username for remote ftp server: anonymous
Enter password for remote ftp server:
Initiating FTP download...
printing one # per 1MB downloaded
Sending: USER anonymous
(vsFTPd 2.0.3)
Please specify the password.
Sending: PASS ***
Login successful.
Sending: TYPE I
Switching to Binary mode.
Sending: PASV
Entering Passive Mode (172,23,136,52,54,200)
Sending: CWD mywaas/downloads
Directory successfully changed.
Sending PASV
Entering Passive Mode (172,23,136,52,139,77)
Sending: RETR L4_15427_FIRMWARE.bin
Opening BINARY mode data connection for L4_15427_FIRMWARE.bin (1924079 bytes).
Backing up existing version WAAS 4.1.1-b1, built on 22:18:49 Aug 25 2008 by sdharmas
Converting Manifest files ...  Done
Rebuilding image based on current software ...  Done
Backing up flash configuration ...  Done
=========================================================================================
   New disk controller firmware(15427) update will be installed on next reload
   During the installation system may appear to be hung, but please wait until it reboots!
=========================================================================================

The new software will run after you reload.
```

Step 4 After the firmware update file is copied to your system, use the **reload** EXEC command to reboot the WAE device as follows:

```
WAE# reload
```

After the WAE device restarts, the system installs the new firmware. This process may take several minutes. When the firmware is installed, the system will reboot again automatically.

Step 5 After the system reboots, use the **show disks tech-support** EXEC command (in WAAS) or the **show disks smart-info details** command (in ACNS) to verify that the new RAID controller firmware version is running. (See the "Checking the RAID Controller Firmware Version" section on page 2 for details.)

The RAID controller firmware version is displayed on the Firmware line of the report. The following WAAS software example shows that the firmware version is 5.2-0 (15427):

```
   Firmware                           : 5.2-0 (15427)
```

To install the RAID controller firmware from a file that is already on your WAE device, follow these steps:

✎
Note   Verify that you have copied the RAID controller firmware image file to the SYSFS directory local1.

Step 1 Log into the WAE device using the CLI.

Step 2   Use the **cd** EXEC command to change the present working directory to the directory where the firmware image resides (SYSFS directory local1).

```
wae# cd local1
```

Step 3   Enter the **install** EXEC command to install the RAID controller firmware image on your WAE device.

```
wae# install L4_15427_FIRMWARE.bin
```

Step 4   Observe the progress of the download.

For example:

```
WAE# install L4_15427_FIRMWARE.bin
Opening BINARY mode data connection for L4_15427_FIRMWARE.bin (1924079 bytes).
Backing up existing version WAAS 4.1.1-b1, built on 22:18:49 Aug 25 2008 by sdharmas
Converting Manifest files ...  Done
Rebuilding image based on current software ...  Done
Backing up flash configuration ...  Done
=======================================================================================
   New disk controller firmware(15427) update will be installed on next reload
   During the installation system may appear to be hung, but please wait until it reboots!
=======================================================================================

The new software will run after you reload.
```

Step 5   After the firmware update file is installed on your system, use the **reload** EXEC command to reboot the WAE device as follows:

```
WAE# reload
```

After the WAE device restarts, the system installs the new RAID controller firmware. This process may take several minutes. When the firmware is installed, the system will reboot again automatically.

Step 6   After the system reboots, use the **show disks tech-support** EXEC command to verify that the new RAID controller firmware version is running. (See the "Checking the RAID Controller Firmware Version" section on page 2 for details.)

The RAID controller firmware version is displayed on the Firmware line of the report. The following example shows that the firmware version is 5.2-0 (15427):

```
   Firmware                        : 5.2-0 (15427)
```

Firmware Version 15427 Resolved Caveats

The following caveat was resolved in firmware version 15427:

Caveat ID Number	Description
CSCsr75784	WAE creates a kdump file rejecting I/O to offline device

Firmware Version 15427 Open Caveats

The following open caveat applies to firmware version 15427:

Caveat ID Number	Description
CSCsz41490	WAE FW downgrade from 15427 to 15418 fails file system mount

Related Documentation

For additional information on the Cisco WAAS software, see the following documentation:

- *Release Note for Cisco Wide Area Application Services*
- *Cisco Wide Area Application Engine 7341, 7371, and 674 Hardware Installation Guide*
- *Cisco Wide Area Application Services Configuration Guide*
- *Cisco Wide Area Application Services Quick Configuration Guide*
- *Cisco Wide Area Application Services Command Reference*
- *Cisco Wide Area Application Services API Reference*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.