

RSA NetWitness® Platform

DAC Disk Drive Firmware Update Instructions

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Introduction

These instructions tell you how to update new firmware versions for the disk drives in the 15-Drive or 60-Drive Direct-Attached Capacity (DAC) storage devices attached to Series 4 and Series 5 appliances or hosts.

Note: When viewing a printed guide, be aware that a newer version may be available online at RSA Link in RSA NetWitness® Hardware Setup Guides: <https://community.rsa.com/community/products/netwitness/hardware-setup-guides>

Summary – This firmware addresses a known issue with the shipping firmware on multiple Seagate drive models causing a larger than normal failure rate for the drives.

Cause – The issue is caused by a known firmware problem inherent in the SNG4 (non-SED) and 0004 (SED) versions of the firmware that ships on the drives. In the version shipped, essential internal maintenance operations required to preserve the health of the drive fail to execute while the drive is in an idle state. This only affects DAC storage and SAN storage is unaffected.

Update the DAC Disk Drive Firmware

To update the disk drive firmware of the DAC, you may need to obtain an update for the `rsa-tools` package. The latest update includes the firmware and a script utilized to both check whether the firmware has been applied and also to apply the firmware on the DACs. The firmware update will have no impact on performance of the DACs and will NOT affect operation of the attached Decoder, Concentrator, Archiver, or Hybrid host.

Prerequisites

- **NetWitness Platform Version** – The minimum version is 10.3.x on NetWitness Platform hosts.
- **RSA SA Tools Zip File** – Download `rsa-sa-tools-20160926.zip` from <https://community.rsa.com/docs/DOC-59934> on RSA Link. The zip file contains the latest version of the `rsa-sa-tools` rpm. Dependent on the version of NetWitness Platform running in your environment, you may already have this version installed.

Procedure

On each host or appliance that has a DAC attached:

1. Log in as root and verify the version of `rsa-sa-tools` RPM that is currently installed by running the following command:

```
# rpm -q rsa-sa-tools
```

If the package version from the command output is less than 10.6.1.1, proceed to step 2, otherwise, go to step 3. See the example output below.

```
rsa-sa-tools-10.6.1.1-149.e190a99.el6.noarch
```

2. If the `rsa-sa-tools` package version in step 1 is less than 10.6.1.1, perform the following steps:
 - a. Download the firmware package <https://community.rsa.com/docs/DOC-59921>
 - b. Upload it to the NetWitness host.
 - c. Unzip the firmware package.

```
# unzip <firmware download package>
```
 - d. Install the 10.6.1.1 `rsa-sa-tools` RPM.

```
# rpm -Uvh rsa-sa-tools-10.6.1.1-140.5.630028e.el6.noarch.rpm
```

3. Determine if the `perccli` package is installed by running the following command:

```
# rpm -q perccli
```

See the example output below:

```
perccli-1.11.03-1
```

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4. If the percli package is not installed or the version is less than 1.11.03-1 perform the following steps:
 - a. Go to the NwDiskFw directory.
`# cd /opt/rsa/saTools/NwDiskFw`
 - b. Install the percli RPM package that is within the NwDiskFw directory.
`# rpm -Uvh percli-<version number>.noarch.rpm`

5. From the `/opt/rsa/saTools/NwDiskFw` directory, run the following command:

```
[root@<hostname> NwDiskFw]# ./nwUpdateDiskFw.py
```

Note: For NetWitness Platform version 11.x or later, run the following command:

```
[root@<hostname> NwDiskFw]# OWB_ALLOW_NON_FIPS=1 ./nwUpdateDiskFw.py
```

The utility checks all drives, lists any that need updates, and prompts you before continuing. Sample output is shown below. If you are attempting to run this script on a host without attached DACs, you will not see the below output and prompt.

Following updates available:

Location	FW	File
1:160:00	GS1C	453-007-565_E04.lod
1:160:01	GS1C	453-007-565_E04.lod
1:160:02	GS1C	453-007-568_E04.lod
1:160:03	GS1C	453-007-565_E04.lod
1:160:04	GS1C	453-007-565_E04.lod
1:160:05	GS1C	453-007-565_E04.lod
1:160:06	GS1C	453-007-565_E04.lod
1:160:07	GS1C	453-007-565_E04.lod
1:160:08	GS1C	453-007-565_E04.lod
1:160:09	GS1C	453-007-565_E04.lod
1:160:10	GS1C	453-007-565_E04.lod
1:160:11	GS1C	453-007-565_E04.lod
1:160:12	GS1C	453-007-565_E04.lod
1:160:13	GS1C	453-007-565_E04.lod

Would you like to apply these updates? [y/n]:

6. To apply the updates, select `y` at the prompt.

It can take several minutes for each drive.

The following is an example of the results that are displayed:

Would you like to apply these updates? [y/n]:y

```
INFO: Running /c1/e160/s0 download src=453-007-565_E04.lod
```

```
OK: FW Download Succeeded
```

```
INFO: Running /c1/e160/s1 download src=453-007-565_E04.lod
```

```
OK: FW Download Succeeded
```

```
.  
. .  
.
```

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```
[root@<hostname> NwDiskFw]#
```

Once complete, there is no further action required for the firmware to take effect. The drives automatically load and start using the firmware while in operation.

Note: An optimization period of up to five days is needed to successfully complete the process. The DAC storage device needs to remain powered on during this process. The full time required is dependent on the size and number of drives configured in the individual DAC. Should the DAC experience a power interruption during the optimization period, the DAC will resume the process automatically when powered back on but it is possible the process will restart from the beginning. The update period should not have an impact on performance of the DAC and will NOT affect operation of the attached Decoder, Concentrator, Archiver, or Hybrid host.

7. (Optional) You can get a status on the drive state and firmware version by running the following command:

```
[root@<hostname> NwDiskFw]# /opt/MegaRAID/MegaCli/MegaCli64 pdlist a1 |  
grep Firmware
```

The following is an example status:

```
Device Firmware Level: C442  
Firmware state: Rebuild  
Device Firmware Level: C442  
Firmware state: Online, Spun Up  
Device Firmware Level: GS18  
Firmware state: Online, Spun Up  
Device Firmware Level: GS18
```

Drives showing a Firmware state of **Online, Spun Up** have completed the optimization process.

8. As a best practice, run the utility again to verify that there are no drives listed that need an update:

```
[root@<hostname> NwDiskFw]# ./nwUpdateDiskFw.py
```

If there are no additional updates required, you will see the following result:

```
'No disks requiring FW update found'
```

Contacting Customer Care

Contacting Customer Care

Use the following contact information if you have any questions or need assistance.

RSA Link	https://community.rsa.com/
Phone	1-800-995-5095, option 3
International Contacts	https://community.rsa.com/docs/DOC-1294
Community	https://community.rsa.com/community/support
Basic Support	Technical Support for your technical issues is available from 8 AM to 5 PM your local time, Monday through Friday.
Enhanced Support	Technical Support is available by phone 24 x 7 x 365 for Severity 1 and Severity 2 issues only.

Preparing to Contact Customer Care

When you contact Customer Care, you should be at your computer. Be prepared to give the following information:

- The version number of the RSA NetWitness Platform product or application you are using.
- The type of hardware you are using.

Use the following contact information if you have any questions or need assistance, follow the instructions provided here: <https://community.rsa.com/docs/DOC-1294>

Revision History

Revision	Date	Description
1.0	October 3, 2016	Initial Release
2.0	October 11, 2016	Added clarifications and made procedural adjustments.
3.0	August 28, 2017	Updated the RPM version in step 1 of the procedure on page 3.
4.0	June 11, 2019	Updated the procedure on page 3.
5.0	June 23, 2020	Added the FIPS command for NetWitness Platform 11.x or later versions to step 5 on page 5. Made other non-procedural adjustments, such as updating links.