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# ***Release Notes***

## ***EverON Software Version 4.0.0.0***

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These release notes are for the ONStor EverON™ software version 4.0.0.0.

The release notes contain the following sections:

- “System Upgrade Procedure” on page 2
- “Serial Port Settings for Initial Configuration” on page 10
- “New Features and Enhancements” on page 11
- “Known Problems” on page 13

**Beta Release**

**Revised June 3, 2008 11:28 am**

## **System Upgrade Procedure**

The following sections document how to upgrade NAS Blades to the 4.0.0.0 version of EverON software. You can upgrade a single NAS Blade or multiple NAS Blades in a cluster.

As a part of the upgrade process, virtual servers of a NAS Blade should be moved to other NAS Blades in the cluster in order to provide continuous Common Internet File System (CIFS) and Network File System (NFS) services to clients.

The software upgrade procedure consists of three parts:

- “Obtaining the New Software” on page 2
- “Performing the Upgrade” on page 3
- “Verifying the Upgrade” on page 5

### **Software Upgrade Considerations**

Before installing the new version of EverON, consider the following:

- If you are upgrading one NAS Blade in a cluster, you should upgrade all NAS Blades in the cluster.

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**Note** - Operating a cluster with different EverON versions for an extended period of time is strongly discouraged.

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- No `uninstall` utility exists, so if you need to revert to a previous software version, contact ONStor Customer Support.
- Upgrading through the NAS Cluster Manager is not supported.
- Although the software continues to offer CIFS or NFS file services while one of the CompactFlash cards is being upgraded, clients of CIFS services might require some refresh time.

### **Obtaining the New Software**

Obtain the software for performing the upgrade from the ONStor Customer Support web site, *support.onstor.com*. To gain access to this site, you need to have a valid support contract with ONStor, Inc. With the support contract, you receive a user account and a password that allows you to access the ONStor support site to obtain software. You also need a separate login and password for downloading software from the File Transfer Protocol (FTP) server.

#### **To Obtain the Software**

*Step 1:* Go to <https://support.onstor.com>.

*Step 2:* Log in with your user account and password.

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**Note** - Access to this site requires that cookies are enabled on your browser.

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*Step 3:* Click **Software/Firmware** from the menu on the left and navigate to the directory for the software release you want.

*Step 4:* Download the software to a local FTP server. If no local FTP server is available, but the local NAS Blades have Internet connectivity, you can perform the upgrade directly from the ONStor Support FTP server. In that case, notify [support@onstor.com](mailto:support@onstor.com).

## **Performing the Upgrade**

You can upgrade to the current software release on either a single NAS Blades or multiple NAS Blades in a cluster.

The upgrade procedure assumes the following:

- You are upgrading NAS Blades from a console session or a secure shell (SSH) session.
- If you are upgrading multiple NAS Blades in a cluster, all NAS Blades and their CompactFlash cards are running the same software version before the upgrade. You can verify the software version by running the **system version** command on each NAS Blade.
- You are upgrading the standby CompactFlash card.
- You have already downloaded the software from the ONStor Customer Support web site. For information about downloading the software, see “Serial Port Settings for Initial Configuration” on page 10.
- This procedure applies to upgrading a single NAS Blade or a cluster of multiple NAS Blades. Steps that apply to a single NAS Blade upgrade only, or multiple NAS Blade upgrades only, are indicated accordingly. All other steps apply to both single NAS Blade and multiple NAS Blade upgrades.
- When upgrading a single NAS Blade, expect some down time. When upgrading a cluster of multiple NAS Blades, no down time occurs because the virtual servers of the NAS Blade being upgraded failover to another NAS Blade in the cluster. In cluster configurations, file processing services are available during the upgrade. However, the following minor interruptions might occur during the failover:
  - NFS services might be interrupted for soft mounts that have small time-outs.
  - CIFS services might be interrupted.

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**Note** - Before upgrading multiple NAS Blades in a cluster, make a note of which virtual servers are on each NAS Blade. Because the upgrade procedure is supported by the software’s failover mechanism, all virtual servers of a NAS Blade that is being upgraded will be on another NAS Blade after the upgrade is completed. By noting

which virtual servers belong to each NAS Blade, you can move virtual servers back to their original NAS Blade to balance the load.

If you have NAS Blades in cluster groups, the virtual servers cannot failover beyond the boundaries of the cluster group to which they belong.

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- When upgrading multiple NAS Blades in a cluster, complete all the steps in the procedure on one NAS Blade first, before upgrading the next one.

### To Upgrade NAS Blades to the New Software Version

*Step 1:* (Optional) To capture the current system configuration, run the following command to send it to ONStor Customer Support:

```
system get all -c CASENUM
```

*CASENUM* is your customer case number under which to upload the collected information to an ONStor server via SSL. If you do not have an existing case number in the system, you need to open a case and upload the files to it.

*Step 2:* (Optional) If you are upgrading multiple NAS Blades in a cluster, use the **vsvr move** command to move virtual servers on the NAS Blade being upgraded to other NAS Blades.

*Step 3:* Run the **system reboot** command to reboot the NAS Blade.

*Step 4:* When asked to confirm rebooting the NAS Blade, type **Y** to reboot, or type **N** to cancel rebooting.

*Step 5:* Run the **system copy all -i** command to transfer all configuration information to the standby CompactFlash card.

*Step 6:* Run the **system upgrade -s** command against the standby CompactFlash card to upgrade that CompactFlash card with the new software files. For example, if the new software was downloaded to `/home/upgrade/R4.0.0.0-060308.tar.gz` on a server with IP address `168.192.3.4`, you would run the following command:

```
system upgrade -s ftp://user:password@168.192.3.4/home/upgrade/  
R4.0.0.0-060308.tar.gz
```

As part of the command syntax, you need to supply a valid user name and password to access the FTP server. During this step, EverON software continues to offer file-processing services while this CompactFlash card is being upgraded.

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**Note** - For more information about the **system upgrade** command, see the *ONStor EverON Version 4.0.0.0 Command Reference*. You can also get help text for this command by running the **help system upgrade** command from the software's command-line interface (CLI).

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- Step 7:* Run the **system reboot -s** command to reboot the upgraded NAS Blade from the standby CompactFlash card. When the NAS Blade reboots, it will use the new software version installed on the standby CompactFlash card as the active configuration.
- Step 8:* When asked to confirm rebooting the NAS Blade, type **Y** to reboot, or type **N** to cancel rebooting.

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**Note** - In this upgrade, the new software image is installed on the standby CompactFlash card and the previous software version is still available on the other CompactFlash card. Retaining the previous release does not guarantee the ability to downgrade where it is not supported.

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This step completes the upgrade of a single NAS Blade. To upgrade multiple NAS Blades in a cluster, continue with the following steps.

- Step 9:* Wait until the upgraded NAS Blade finishes rebooting, then verify that it has rejoined the cluster by running the **cluster show cluster** command on another NAS Blade in the cluster. The resulting output contains the `state` field. If the upgraded NAS Blade has successfully rebooted and rejoined the cluster, the `state` field displays `UP`.

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**Note** - After the first NAS Blade is upgraded, but before the second NAS Blade is upgraded, you cannot run any commands that write to the cluster database, for example, any **create** or **share add** commands. However, you can run commands that read from the cluster database, for example **cluster show cluster**.

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- Step 10:* After the upgraded NAS Blade has rebooted, repeat this procedure on any other NAS Blade you want to upgrade.
- Step 11:* (Optional) To capture the updated system configuration, run the following command to send it to ONStor Customer Support:
- ```
system get all -c CASENUM
```
- CASENUM* is your customer case number under which you upload the collected information to an ONStor server via SSL. If you do not have an existing case number in the system, you need to open a case and upload the files to it.
- Step 12:* Once all NAS Blades are updated, you can move the virtual servers to load balance across the cluster.

## Verifying the Upgrade

You can perform a few optional steps to ensure that the upgrade completed successfully. To verify that the new version of software has loaded, follow this procedure:

- Step 1:* After a NAS Blade reboots, run the **system show chassis** command on each NAS Blade to verify that all the modules and CPUs have successfully rebooted. All CPUs and

modules should be in the UP state.

The following is an output example from an ONStor Cougar 6000 Series NAS Blade that successfully rebooted:

```
cougar-1> system show chassis

  module      cpu      state
-----
  SSC         SSC      UP
  NFPNIM      TXRX0    UP
              TXRX1    UP
              FP0      UP
              FP1      UP
              FP2      UP
              FP3      UP
-----
cougar-1>
```

*Step 2:* Run the **system version** command on each NAS Blade to verify that the new software version is running.

```
cougar-1> system version
4.0.0.0
cougar-1>
```

If the NAS Blades are running different software versions, you should repeat the procedure in “System Upgrade Procedure” on page 2 or contact ONStor Customer Support.

*Step 3:* Verify that all volumes are visible and online.

- From the CLI, run the **cluster show info** command
- From the NAS Cluster Manager, check that the indicator next to the volume name in the tree view is green

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**Note** - In the event that some of the volumes are not visible, perform one of the following options on all NAS Blades:

- From the CLI, run the **lun rescan all** command.
- From the NAS Cluster Manager, click the cluster name, click the Storage tab, then click Rescan All.

After a few minutes, check the volume status again.

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*Step 4:* Verify client connectivity. If you are experiencing problems, contact ONStor Customer Support.

## **Verifying File Systems on All Data Volumes**

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**Note** - Do not run this procedure on core volumes or mirror volumes.

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The purpose of the following procedure is to proactively determine if file system inconsistencies are present on the volumes. For more information about the following commands, see the *ONStor EverON Version 4.0.0.0 Command Reference*.

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**Note** - Repeat Steps 4 through 11 for all volumes.

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### **To Verify File Systems**

*Step 1:* Log in as root.

*Step 2:* Press the Enter key at the Terminal type prompt.

*Step 3:* Start the nfxsh shell.

**nfxsh**

*Step 4:* Obtain a list of the volumes.

**volume show**

*Step 5:* Set the event log severity level.

**elog level info**

*Step 6:* Set the virtual server context.

```
vsvr set VIRTUALSERVER
```

*Step 7:* Take an on-demand snapshot.

```
snapshot create VOLNAME fsck_snap
```

*Step 8:* Display all the snapshots that have been taken for this volume.

```
snapshot show VOLNAME list
```

*Step 9:* Note the snapshot ID number.

This is the first number in the Id column.

```
cougar-1> snapshot show vol100 list
/
snapshot                create time                Id
=====                =====                ==
fsck_snap                Fri May 25 15:41:17 2007  2 / 1
techpubs                 Fri May 25 15:02:43 2007  1 / 1

Total size      ..... 20335 MiB
In use ..... 51 MiB
Available ..... 20284 MiB
```

*Step 10:* Exit the nfxsh shell.

```
exit
```

*Step 11:* Start a read-only **fsck** on the snapshot.

```
fscmd fsck VOLNAME -v -s IdNumber
```

In the following example, you are running the **fscmd fsck** command on volume *vol100* and the *fsck\_snap* snapshot (Id 2 in the previous example).

```
fscmd fsck vol100 -v -s 2
```

*Step 12:* If the **fscmd fsck** command aborts abnormally or reports any errors, return to Step 4 for additional volumes. Otherwise, continue with the next step.

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**Note** - If the command aborts abnormally or errors are reported, the volume will continue to be available with read-write access. It is recommended to take the volume offline immediately. However, if this is not possible, you should be advised that continued read-write access might further affect the volume.

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*Step 13:* Delete the snapshot and return to Step 4 for additional volumes.



**snapshot delete *VOLNAME* fsck\_snap**

*Step 14:* After all volumes have been checked, change the event log severity level.

**elog level notice**

*Step 15:* If the **fscmd fsck** command reported errors, open a case with ONStor Customer Support. Be prepared to provide ONStor Customer Support with the logs of the SSH session and the latest output of the **system get all** command.

## ***Serial Port Settings for Initial Configuration***

NAS Blades have preconfigured IP addresses for the sc0 and sc1 ports and the ability to use Dynamic Host Configuration Protocol (DHCP). You can also continue to use the Console port to do the initial NAS Blade configuration at installation time, which includes setting up the NAS Blade name and IP address. However, if the NAS Blade is already on the network, you can follow the upgrade process by initiating an SSH session to the management server by using either the sc0 IP address (172.18.250.250) or the sc1 IP address (172.19.250.250).

A serial cable is supplied with every new NAS Blade. You can use a terminal emulation application like HyperTerminal to connect to the Console of the NAS Blade through its serial port. The serial port settings with an RS232 cable are as follows:

- Baud Rate: 57600 (56 K)
- Data Bits: 8
- Parity: None
- Stop Bits: 1
- Flow Control: None

## ***New Features and Enhancements***

EverON 4.0.0.0 supports the following new features and enhancements:

### ***DameWare***

The DameWare products of interest are:

- DameWare NT Utilities
- DameWare Explorer

#### Supported Features

- Open Files
- Properties - Version TAB
- Sessions
- Shares
- TCP utilities

#### Unsupported Features

- Event Log
- Printers
- Processes
- Properties
- RAS
- Registry
- Remote Command
- Remote Control
- Replication
- Schedule
- Send Message
- Services
- Shutdown
- System Tools
- Wake-On-LAN

## **Security Explorer**

### Supported Features

- NTFS
- Shares

### Unsupported Features

- Registry
- Printers
- Services
- Tasks
- SharePoint
- SQL

## **Bobcat to Cougar Migration**

To aid in the migration of the ONStor Bobcat 2200 Series NAS Gateway to the ONStor Cougar 6000 Series NAS Gateway the *ONStor Cougar 6000 Series NAS Gateway Migration Guide* is available at <http://support.onstor.com>.

## **100 TB File Systems**

With this release, ONStor now supports 100 TB file systems. The hard quota is automatically set at 98 TB for new file systems.

## **First Time Install**

The ONStor Cougar 6000 Series NAS Gateway can be initially configured through SSH, the Console port, and the NAS Cluster Manager (NCM).

The default IP address for sc0 is 172.18.250.250 and 172.19.250.250 for sc1. The netmask is 255.255.0.0 for both sc0 and sc1. There is no default route when the NAS Gateway boots with the default IP address.

For NCM, use either <https://172.18.250.250> or <https://172.19.250.250> to display the initial configuration Web page in a browser.

For more information, see the *ONStor Cougar 6000 Series NAS Gateway Installation Guide*.

## ***Known Problems***

EverON 4.0.0.0 contains known problems in the following areas:

- “Linux” on page 13
- “SNMP” on page 13

At the beginning of each problem description, an annotation indicates if a workaround for this problem exists. Where applicable, a detailed workaround is provided in the description.

### ***Linux***

#### ***Outgoing Socket connect() Returns Error <<TED 23817>>***

##### ***Severity 2-Major***

**Author’s Note: I need a description.**

**Workaround:** None

### ***SNMP***

#### ***SNMP Keeps Crashing With This Same Backtrace <<TED 23800>>***

##### ***Severity 2-Major***

**Author’s Note: I need a description.**

**Workaround:** None

