NexentaStor 5.0.3-FP1
Release Notes

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Release History

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<tr>
<td>April, 2017</td>
<td>NexentaStor 5.0.3 GA version</td>
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<tr>
<td>May, 2017</td>
<td>NexentaStor 5.0.3-FP1 version</td>
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Resolved Issues

This table lists the resolved issues as of NexentaStor 5.0.3-FP1.

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<tr>
<th>Component</th>
<th>Key</th>
<th>Description</th>
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<tr>
<td>Chassis Management, NEF API</td>
<td>NEX-10295</td>
<td>Resolved issue where NexentaStor did not list InfiniFlash SSD devices.</td>
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Known Issues

Known issues for 5.0.3-FP1 is identical to known issues in NexentaStor 5.0.3.

Installation Procedure

Follow the instructions in the *NexentaStor 5.0 and NexentaFusion 1.0 Installation QuickStart Guide* for a fresh install.
Upgrading to the Latest NexentaStor 5.0 Version

1. Check the current version of the NexentaStor by running the following command.

   CLI@nexenta> software version
   Note the current version number to validate later that the upgrade completed successfully.

Setting Up Proxy

2. Configure the proxy server if you need to use one to access the repositories for upgrading NexentaStor software packages.

   CLI@nexenta> config set system.webProxy = http://example.com:8080

   To view the proxy server that you set up:

   CLI@nexenta> config list system.webProxy

   If you need to unset the proxy:

   CLI@nexenta> config reset system.webProxy

With Internet Connection

3. You can upgrade to the latest version from an earlier NexentaStor 5.0 version using the following command.

   CLI@nexenta> software upgrade

   Reboot once the upgrade completes.

   **Note:** Upgrading from NexentaStor 4.0.x to NexentaStor 5.0 is not supported.

4. The upgrade process grabs the images from the following locations, bypassing the need to download images.

   CLI@nexenta> publisher list

   PUBLISHER      STATUS       LOCATION
   nexenta        online       https://prodpkg.nexenta.com/nstor/pkg5/
   HighAvailability online https://prodpkg.nexenta.com/thirdparty/HAC/rsf/pkg5/

5. Verify that you have successfully upgraded to the latest version. The system output shows the expected version number as in the following example.

   CLI@nexenta> system status
   Host name          ANS5QA40-1
   Version            5.0.3-FP1
   Cluster name       Not clustered
   Management IP address  10.3.199.163:8443
6. Confirm that the upgrade version is activated and to see your boot environment list.

```
CLI@nexenta> software list
```

```
NAME                SPACE    ACTIVENOW  ACTIVEAFTERREBOOT  CREATIONTIME
NexentaStor-5.0.3   1021.1M  no         no                 May 16
NexentaStor-5.0.3-1 3.47G    yes        yes                May 16
```

7. Reboot the appliance.

8. Validate the software version.

```
CLI@nexenta> software version
```

```
PUBLISHER  VERSION     PACKAGINGDATE
nexenta    5.0.3-FP1   Mon May 8 08:49:24 2017
```

Without Internet Connection

If you do not have an internet connection and want to upgrade NexentaStor, contact support@nexenta.com to obtain the media-ready image. Use this media-ready image to create a loadable DVD, which can be used to upgrade to the latest NexentaStor 5.0.

1. Log in to the NexentaStor node that does not have internet connection.
2. Load the DVD you created from the loadable image into the DVD Slot.
   The ISO gets mounted automatically.

**To upgrade the NexentaStor ISO:**

3. From the CLI, update the publisher origin.
   Destroy the current publisher first.
   
   ```
   CLI@nexenta> publisher destroy <publisher of the repository to remove>
   Example:
   CLI@nexenta> publisher destroy nexenta
   CLI@nexenta> publisher destroy HighAvailability
   ```

4. Set the publisher to pick the ISO from the dark site DVD.
   ```
   CLI@nexenta> publisher create nexenta /media/NS_UpgradeCD/nexenta
   ```

5. Set the publisher to pick the HighAvailability image from the dark site DVD.
   ```
   CLI@nexenta> publisher create HighAvailability /media/NS_UpgradeCD/rsf
   ```
6. Verify the publisher list.
   CLI@nexenta> publisher list

   PUBLISHER        STATUS    LOCATION
   nexenta          online    file:///media/NS_UpgradeCD/nexenta
   HighAvailability online    file:///media/NS_UpgradeCD/rsf

7. Now dry-run the upgrade.
   CLI@nexenta> software upgrade -n

   Would perform upgrade from version 5.0.0.43.1 to 5.0.3.7

8. Validate that the upgrade is in place.
9. Now run the upgrade.
   CLI@nexenta> software upgrade

10. Reboot the appliance.
11. Validate the software version.
    CLI@nexenta> software version

    PUBLISHER VERSION PACKAGINGDATE
    nexenta  5.0.3-FP1 Mon May 8 08:49:24 2017
Upgrading Clustered Nodes

This example shows two pools (PoolA and PoolB) with PoolA on NodeA and PoolB on NodeB and a HA service (PoolA) running on NodeA. The section covers the following steps:

1. Failover a HA service (PoolA) running on NodeA to NodeB.
2. Upgrade NodeA.
3. Failover the HA service (PoolA) back to NodeA after upgrading NodeA.
4. Now upgrade Node B.
5. Move the service back to its original configuration.

To upgrade the clustered nodes:

1. List the HA services running on the clustered nodes.
   
   CLI@NodeA> haservice list
   
   NAME    DESCRIPTION       NODES        RUNNING  STOPPED  BROKEN
   poolA   myclusterservice  NodeA,NodeB  NodeA    NodeB    -

2. Verify the existing pools on both the nodes.
   
   CLI@NodeA> pool list
   
   NAME   SIZE    ALLOC   FREE   AVAIL  DEDUP  EXPANDSZ  FRAG  HEALTH
   poolA  9.63G   100.2M  9.53G  99%    1.00x  -          0%    ONLINE
   rpool  12.47G  7.41G   5.06G  41%    1.00x  -          26%   ONLINE

   CLI@NodeB> pool list
   
   NAME   SIZE    ALLOC   FREE   AVAIL  DEDUP  EXPANDSZ  FRAG  HEALTH
   poolB  9.63G   100.2M  9.53G  99%    1.00x  -          0%    ONLINE
   rpool  12.47G  7.41G   5.06G  41%    1.00x  -          26%   ONLINE

3. Failover the HA service running on NodeA to the other node (NodeB) in the cluster.

4. The example here shows only one cluster service running on NodeA. If you have more than one service on the node, when failing over all the services will fail over to the other node in the cluster.

   CLI@NodeA> haservice failover <from-node> <to-node>
   
   Example:
   
   CLI@NodeA> haservice failover NodeA NodeB
   
   System response:
   
   The following services can be moved:
   
   PoolA
   
   Move 1 service(s) from node ‘NodeA’ to node ‘NodeB’? [y/N] y
   
   Moving service 'PoolA' ... OK
   
   All running services have been successfully moved.
   
   Now the HA Service failed over to NodeB and the poolA imported to NodeB.
5. From NodeA or NodeB, verify that the HA Service failed over to NodeB.

```sh
CLI@NodeB> haservice status
```

6. System response:

```
service: PoolA
NODE  STATUS  MODE  UNBLOCKED
NodeA  stopped  manual  yes
NodeB  running  manual  yes
```

7. From NodeB, verify that the PoolA from NodeA imported to NodeB.

```sh
CLI@NodeB> pool list
```
```
NAME  SIZE   ALLOC  FREE   AVAIL  DEDUP  EXPANDSZ  FRAG  HEALTH
poolA 9.63G  100.2M  9.53G  99%    1.00x  -          0%    ONLINE
poolB 9.63G  100.2M  9.53G  99%    1.00x  -          0%    ONLINE
rpool 12.47G 7.41G  5.06G  41%    1.00x  -          26%   ONLINE
```

8. Now upgrade NodeA. Before the actual upgrade, do a dry run to ensure that you are upgrading to the intended version.

```sh
CLI@NodeA> software upgrade -n
```

System response:

```
Would perform upgrade from version 5.0.1.2 to 5.0.3.7
```

```sh
CLI@NodeA> software upgrade
```

Upgrading system software...

```
Upgrade done.
```

```
On the next boot the Boot Environment NexentaStor-5.0.3-1 will be mounted on /. Reboot when ready to switch to this updated BE.
```

```
Reboot now? [y/N]
```

9. Type “y” to reboot the appliance.

10. Confirm that the upgrade version is activated and to see your boot environment list.

```sh
CLI@NodeA> software list
```
```
NAME                SPACE    ACTIVENOW  ACTIVEAFTERREBOOT  CREATIONTIME
NexentaStor-5.0.3  1021.1M  no         no                 May 16
NexentaStor-5.0.3-1 3.47G    yes        yes                May 16
```

11. Validate the software version.

```sh
CLI@NodeB> software version
```
```
PUBLISHER  VERSION        PACKAGINGDATE
nexenta    5.0.3-FP1       Mon May 8 08:49:24 2017
```
12. From NodeB verify that the NodeA is listed in the cluster after upgrading NodeA.

   CLI@NodeB> hacluster status

   == Cluster status ==
   NAME     STATUS NODES SERVICES DESCRIPTION
   GACluster ok 2/2 1/1 5.0 HA Cluster

   == Nodes ==
   NODE STATUS SERVICES ADDRESS HostId Release
   NodeA up 0/1 10.3.65.9 - -
   NodeB up 1/1 10.3.65.8 808b556b 3.12.0

13. After NodeA is upgraded, failover the service back to NodeA from NodeB using the following command on NodeB:

   CLI@NodeB> haservice failover NodeB NodeA

14. Now verify from NodeA that the HA Service (PoolA) is up and running on NodeA.

   CLI@NodeA> haservice status

   System response:
   service: PoolA
   NODE STATUS MODE UNBLOCKED
   NodeA running manual yes
   NodeB stopped manual yes

15. Also verify that the pools moved from NodeB to NodeA.

   CLI@NodeA> pool list

   NAME   SIZE   ALLOC   FREE   AVAIL  DEDUP  EXPANDSZ  FRAG  HEALTH
   poolA  9.63G  100.2M  9.53G 99% 1.00x - 0% ONLINE
   poolB  9.63G  100.2M  9.53G 99% 1.00x - 0% ONLINE
   rpool 12.47G  7.41G  5.06G 41% 1.00x - 26% ONLINE

16. Now upgrade NodeB.

   CLI@NodeB> software upgrade

   Upgrading system software...

   Upgrade done.

   On the next boot the Boot Environment NexentaStor-5.0.3-1 will be mounted on /. Reboot when ready to switch to this updated BE.

   Reboot now? [y/N]

17. Type “y” to reboot the appliance.

18. Confirm that the upgrade version is activated and to see your boot environment list.

   CLI@NodeB> software list

   NAME                SPACE    ACTIVE NOW  ACTIVE AFTER REBOOT  CREATIONTIME
   NexentaStor-5.0.3  1021.1M  no     no          May 16
   NexentaStor-5.0.3-1 3.47G    yes   yes       May 16
19. From NodeA verify that the NodeB is back in the cluster after upgrading NodeB.

```
CLI@NodeA> hacluster status
== Nodes ==
NODE  STATUS  SERVICES  ADDRESS    HostId    Release
NodeA up  1/1  10.3.65.9  -        - 3.12.0
NodeB up  0/1  10.3.65.8  808b556b  -        -
```

20. From NodeB move PoolB back to NodeB so the cluster is back in its original configuration with PoolA on NodeA and PoolB on NodeB.

```
CLI@NodeB> haservice move <service> NodeA
Example:
CLI@NodeB> haservice move PoolA NodeA
```

21. Now verify from both the nodes that the HA service is up and running from their original configuration. Run the following commands from both the nodes.

```
CLI@NodeA> haservice status
CLI@NodeB> haservice status

CLI@NodeA> haservice list
NAME   GUID                    VIPs  NODES        RUNNING  STOP
poolA  14089758145006079395    Avip  Node A,NodeB  Node A    NodeB

CLI@NodeB> haservice list
NAME   GUID                    VIPs  NODES        RUNNING  STOP
poolB  14089758145006079395    Avip  NodeA,NodeB  NodeA    NodeB
```
Where to Find More Information

For more information on NexentaStor 5.0 and NexentaFusion 1.0, use the following documents in conjunction with this release notes. To access the following documents, please visit:
https://nexenta.com/products/documentation

**NexentaStor 5.0 Product Guide**
This document includes an overview of NexentaStor and its core components, describes key features, and provides relevant CLI commands. This manual is intended as a guide to NexentaStor concepts and not as a configuration guide.

**NexentaStor 5.0 and NexentaFusion 1.0 Installation QuickStart**
This document includes the instructions to install and upgrade NexentaStor and NexentaFusion.

**NexentaFusion 1.0 User Guide**
This documentation provides easy to follow step-by-step instructions for common configuration and monitoring tasks.

**NexentaStor 5.0 CLI Configuration QuickStart**
This guide demonstrates the basic steps and commands to configure and manage NexentaStor 5.0 appliances. Use this document in conjunction with the NexentaStor 5.0 CLI Reference Guide, and the NexentaStor 5.0 HA CLI Admin Guide.

**NexentaStor 5.0 CLI Reference Guide**
This reference guide provides a summary of the CLI commands. Use it in conjunction with the NexentaStor 5.0 CLI Configuration Guide.

**NexentaStor 5.0 HA QuickStart**
This guide demonstrates the basic steps and commands to configure and manage the NexentaStor 5.0 High Availability (HA) cluster using the NexentaStor 5.0 Command Line Interface (CLI).

**NexentaStor 5.0 vCenter QuickStart**
This guide includes instructions to install NexentaStor 5.0 vCenter Web Client Plugin (vCenter Plugin), which enables VMware customers to configure and manage storage and virtualization through a single interface. You can use this plugin to access summary and detailed analytics and real time status monitoring of single and clustered NexentaStor appliances.

**NexentaStor 5.0 VVOL Admin Guide**
This guide describes the NexentaStor Virtual Volume (VVOL) solution. It provides instructions on how to deploy VVOL, integrate it with VMware vSphere, and enumerates storage operations it supports.

**NexentaStor 5.0 High Performance Replication (HPR) User Guide**
This document demonstrates how to configure High Performance Replication (HPR) to replicate datasets using the NexentaStor Command Line Interface (CLI) and using the NexentaFusion GUI.
For details on the list, see portal.nexenta.com.

**Hardware Certification List (HCL) for NexentaStor 5.0**
This document provides a list of certified hardware for NexentaStor 5.0 and is intended for Nexenta Partners and Nexenta customer-facing organizations. The latest version of Nexenta Hardware Certification List (HCL) is posted on Partner Portal. For information on the NexentaStor Openstack Cinder drivers (NFS/ iSCSI), see docs.openstack.org and search for ‘NexentaStor 5.0’.