NexentaFusion 1.2
Release Notes

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Table of Contents

Table of Contents ....................................................................................................................... 2
Product Overview ....................................................................................................................... 3
What’s New in NexentaFusion 1.2 ............................................................................................. 4
Resolved Issues ........................................................................................................................... 6
Minor Enhancements .................................................................................................................. 6
Known Issues .............................................................................................................................. 7
Installation and Upgrade Procedures ......................................................................................... 9
Where to Find More Information ............................................................................................... 9

Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Description</th>
</tr>
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</table>
Product Overview

This document provides the release notes for the GA version of NexentaFusion 1.2.

The NexentaFusion 1.2 graphical user interface (GUI) enables you to intuitively manage NexentaStor and NexentaCloud appliances. You can create and configure pools, create and share file systems, as well as access appliance-level summaries of hardware, pools, NICs, file systems, shares, volumes, LUNs, and services. NexentaFusion uses drill-down menus, action cogs, and expand-contract arrows, to provide a full range of administrative functionality for provisioning, monitoring, and optimizing storage appliances. You access NexentaFusion online help through a Web browser. NexentaFusion 1.2 supports the latest version of Chrome, and Firefox v47 or later.

Note:
• NexentaFusion 1.2 supports NexentaStor 5.1.0 and later appliances, and NexentaCloud 5.1.2.
• Self-signed certificates are not recommended for production environments. A certificate signed by trusted Certificate Authority (CA) is more secure and is considered best practice.

NexentaFusion Deliverables

• NexentaFusion continues to be delivered as an OVA file to be used on VMware based hypervisors.
• Additionally, NexentaFusion can be deployed as a docker container and is available via a script from nexenta.github.io.
• NexentaFusion is also available as an instance in the public cloud through the AWS marketplace

Licensing

NexentaStor 5 Enterprise Edition license and NexentaCloud hourly and annual licenses include the right to use NexentaFusion to manage the licensed systems at no extra charge. If running NexentaFusion in AWS, the user is responsible for AWS infrastructure costs.
What’s New in NexentaFusion 1.2

NexentaFusion 1.2 delivers features and fixes to improve stability, scalability, and performance. This release builds on the fixes and enhancements previously released in 1.1.1; addresses customer-reported issues, and addresses issues found internally by Nexenta engineering.

This section provides an overview of the changes and feature enhancements in this release.

One-Click NexentaCloud in AWS
NexentaFusion, deployed on-premises or in AWS, provides automated deployment of NexentaCloud instances from the main dashboard. NexentaFusion administrators utilize simple wizards to provision NexentaCloud and the required Elastic Block Storage followed by automated registration of the instance with NexentaFusion for management. Initial configuration includes validation of AWS credentials followed by the selection of performance type and capacity required. Once the instance has been provisioned with a combination of the Nexenta and AWS APIs the NexentaCloud instance is managed just like any NexentaStor appliance: create a pool and file systems, configure NFS and SMB services, set data protection and data replication services, etc.

See Chapter 6, Deploying NexentaCloud Appliances: NexentaFusion 1.2 User Guide - RevA

Management of appliance alert cases
The Case Monitoring interface in NexentaFusion allows users to manage appliance alert cases. This interface allows you to view all the active alert cases, search the history of cases, and acquit a case. In order to receive email notifications of the active detected issues directly from the appliance, the SMTP mail server must be configured.

See Chapter 12, Fault Management: NexentaFusion 1.2 User Guide - RevA

Improved device management for disk alert cases
The DISK alert case view has been improved to clearly identify the problem device, and let you blink the ident LED of the enclosure and device.

See Chapter 12, Fault Management: NexentaFusion 1.2 User Guide - RevA

Easy installation script to install NexentaFusion as a Docker container
A script to install NexentaFusion as a docker container is available in https://nexenta.github.io.

See NexentaFusion 1.2 Installation Guide - RevA

Support for pausing and restarting scrub
For uninterrupted IOs, the NexentaFusion interface provides the ability to pause the scrub at peak hours and resume the scrub at off-peak hours.

See Chapter 8, Managing Storage: NexentaFusion 1.2 User Guide – RevA

Replication password configuration in UI
The NexentaFusion interface now provides the facility to set a replication password. The replication password provides a simple, non intrusive level of authentication that protects NexentaStor appliances from being configured as the replication target of systems that are not in the same replication group. During the NexentaStor installation, you were prompted and then entered a replication password. If you must change this already set password, you can use the NexentaFusion interface.

See Chapter 9, Managing Datasets: NexentaFusion 1.2 User Guide - RevA
**Improved rules view with email notification set by default**

NexentaFusion generates alerts and email notifications in response to a specified event or occurrence. NexentaFusion continuously watches for events that match rule criteria, and immediately generates an alert with the specified severity of error or warning. Email notification is enabled by default for all rules, to email the recipients configured on the NexentaFusion Email Setup view. You can modify default rules to disable email notifications, restrict the email notification to be sent to a specific set of recipients, and disable rules as needed.

See Chapter 12, Fault Management: NexentaFusion 1.2 User Guide - RevA

**Allow setting LUN blocksize at LUN creation, and LUN properties dialog**

NexentaFusion provides the facility to set the LUN blocksize during the creation of the LUN itself. A LUN is created when the first mapping is saved to the appliance, and now you can set the blocksize with this first mapping. The default block size of the logicalunit is 512 Bytes.

See Chapter 9, Managing Datasets: NexentaFusion 1.2 User Guide - RevA

**UI to restart NexentaFusion and ESDB services**

A specific error condition may require you to restart the “Elasticsearch service” or “NexentaFusion service” or even reboot the “NexentaFusion server”. If you installed NexentaFusion as an OVA, the NexentaFusion interface allows you to restart the services or reboot the NexentaFusion server.

See Chapter 3, Configuring NexentaFusion: NexentaFusion 1.2 User Guide – RevA

**Miscellaneous Enhancements**

NexentaFusion Server/ESDB management improvements include the following:

- Allow clearing all alerts with 1 click
- Additional conditions checked by the Fusion server health tracker
**Resolved Issues**

Table 1: NexentaFusion 1.2 Resolved Issues

<table>
<thead>
<tr>
<th>Component</th>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytics</td>
<td>NEX-15359</td>
<td>Resolved an issue where the Y axis of the Capacity Utilization Widget did not scale via widget settings and the pool dropdown state was seen as disabled for a custom time range.</td>
</tr>
<tr>
<td>Logs/Alerts/Rules</td>
<td>NEX-15539</td>
<td>Changed the settings of email notifications to be enabled by default, and improved the usability and appearance of the Fusion Settings/Email Setup view.</td>
</tr>
<tr>
<td>Logs/Alerts/Rules</td>
<td>NEX-15553</td>
<td>Added a rule for the error severity syslog, but both this and the rule for critical severity error are disabled by default.</td>
</tr>
<tr>
<td>NEF API, Security</td>
<td>NEX-15228</td>
<td>Resolved an issue where users could not register NexentaStor in NexentaFusion if they had a self-signed certificate installed on NexentaStor.</td>
</tr>
<tr>
<td>Pool Management</td>
<td>NEX-15488</td>
<td>Resolved an issue where, on an appliance with no internal disks, the &quot;Pools&quot; view in the NexentaFusion UI delivered a &quot;cannot read property 'forEach' of undefined&quot; and displayed an empty &quot;Disks&quot; tab.</td>
</tr>
<tr>
<td>Upgrade</td>
<td>NEX-15946</td>
<td>Resolved an issue where changes in external links to the JDK caused an upgrade failure, by retrieving the JDK from an internal repo rather than the external site.</td>
</tr>
</tbody>
</table>

**Minor Enhancements**

Table 2: NexentaFusion 1.2 Notable Minor Enhancements

<table>
<thead>
<tr>
<th>Component</th>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis Management</td>
<td>NEX-16834</td>
<td>Added Fusion support for the Ericsson HDS8000_SSU0112 JBOD.</td>
</tr>
<tr>
<td>Chassis Management</td>
<td>NEX-16876</td>
<td>Added Fusion support for the Ericsson HDS8000_SSU0111 JBOD.</td>
</tr>
<tr>
<td>Console Wizard</td>
<td>NEX-16852</td>
<td>Proxy settings have been moved from the Console Wizard Upgrade selection to the Advanced Actions selection.</td>
</tr>
<tr>
<td>Console Wizard, ESDB</td>
<td>NEX-16851</td>
<td>The default ESDB heap size for an OVA install is now 4G, expecting a minimum total memory size of 8G. The Console Wizard can be used to change this value if needed.</td>
</tr>
<tr>
<td>Security</td>
<td>NEX-15679</td>
<td>NexentaFusion now allows you to display the IRS Publication 1075 warning banner at initial logon screen on computers housing federal tax information or display any customized messages.</td>
</tr>
</tbody>
</table>
## Known Issues

**Table 3: NexentaFusion 1.2 Known Issues**

<table>
<thead>
<tr>
<th>Component</th>
<th>Key</th>
<th>Description</th>
<th>Workaround</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMI</td>
<td>NEX-17309</td>
<td>Occasionally, the NexentaCloud deployment status does not update to &quot;Connected&quot;, but instead remains stuck at &quot;Cleanup&quot; on the Appliance List view.</td>
<td>Refresh the screen by clicking F5.</td>
</tr>
<tr>
<td>AMI</td>
<td>NEX-17368</td>
<td>A NexentaCloud appliance at version 5.1.2 fails to generate alerts for high pool utilization and pool configuration changes.</td>
<td>All details about pool utilization and configuration can be seen in the Management &gt; Pools view.</td>
</tr>
<tr>
<td>AMI</td>
<td>NEX-17422</td>
<td>Changing the password for a NexentaCloud appliance from the CLI results in unknown status of that appliance in Fusion.</td>
<td>Unregister the appliance and re-register.</td>
</tr>
<tr>
<td>AMI</td>
<td>NEX-17506</td>
<td>The error &quot;invalid value ... for instance type&quot; occurs rarely during the license upgrade process for a NexentaCloud instance.</td>
<td>Click &quot;Continue&quot; in the COG, and the upgrade should complete successfully.</td>
</tr>
<tr>
<td>AMI</td>
<td>NEX-17642</td>
<td>After deploying a NexentaCloud instance, navigating to the Fusion Management/All Cases view will display 3 out-of-date, invalid cases.</td>
<td>Ignore the out-of-date cases.</td>
</tr>
<tr>
<td>Analytics, Health</td>
<td>NEX-14950</td>
<td>A heavily-loaded appliance with a large FMA alert database may result in Fusion displaying an &quot;unknown&quot; icon in the health widget for CPU and Network utilization.</td>
<td>Use the CLI or the Fusion Management/Case Monitoring view to check for alerts on CPU or NW utilization.</td>
</tr>
<tr>
<td>CIFS-SMB</td>
<td>NEX-15887</td>
<td>Fusion and the NEF CLI do not support adding SMB shares with spaces for the share name.</td>
<td>Nexenta recommends avoiding using share names with spaces in them. If avoiding spaces is impossible, contact Nexenta Support for assistance with adding shares with spaces in the name.</td>
</tr>
<tr>
<td>ESDB</td>
<td>NEX-14372</td>
<td>Occasionally, ESDB is not available immediately after installing an OVA.</td>
<td>If this occurs on an OVA, reset the management address. If this occurs on a docker instance, restart the docker container.</td>
</tr>
<tr>
<td>Fusion Bundle</td>
<td>NEX-17244</td>
<td>A Fusion support bundle larger than 512 MB will fail to upload using https, and a bundle larger than 256 MB will fail to upload using ftp.</td>
<td>Contact Nexenta support for another mechanism to deliver large support bundle files.</td>
</tr>
<tr>
<td>HA</td>
<td>NEX-7434</td>
<td>Fusion can continue to display an appliance as a cluster even after the cluster has been destroyed.</td>
<td>Unregister the cluster, and then re-register the individual nodes as separate appliances.</td>
</tr>
<tr>
<td>HA</td>
<td>NEX-8125</td>
<td>Creating a cluster between two nodes already registered in the Fusion UI will not be reflected in the Fusion UI; UI will continue to recognize the nodes as separate, un-clustered nodes.</td>
<td>Either establish the cluster and then register, or un-register and re-register the cluster nodes.</td>
</tr>
<tr>
<td>Category</td>
<td>Issue ID</td>
<td>Description</td>
<td>Resolution</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HA</td>
<td>NEX-15110</td>
<td>The Fusion UI can intermittently display a status of &quot;Unknown&quot; for HA service.</td>
<td>Click on the refresh button and the status changes from &quot;Unknown&quot; to the correct status of either &quot;Running&quot; or &quot;Stopped&quot;.</td>
</tr>
<tr>
<td>HA</td>
<td>NEX-16018</td>
<td>Occasionally, after moving an HA service from one node to another, the service state does not update properly.</td>
<td>Click F5 to refresh the browser.</td>
</tr>
<tr>
<td>HA</td>
<td>NEX-17263</td>
<td>Changing the state of an HA service from offline to online does not always update the HA Cluster services screen.</td>
<td>Click Refresh to see the updated state.</td>
</tr>
<tr>
<td>HPR</td>
<td>NEX-8426</td>
<td>The Fusion UI does not allow a filesystem containing snapshots with clones to be destroyed. The error is: Failed to destroy snapshot: pool/filesystem@snapshot. Status code: EEXIST</td>
<td>Destroy filesystem from NEF CLI: filesystem destroy -R pool/filesystem</td>
</tr>
<tr>
<td>iSCSI</td>
<td>NEX-15867</td>
<td>Fusion fails to remove the iSCSI Target from the target group when the iSCSI Target state is unknown.</td>
<td>Enable/Resolve the iSCSI target service state. Delete the target or group from the CLI.</td>
</tr>
<tr>
<td>NFS</td>
<td>NEX-15388</td>
<td>If a Hosts Access entry for Read/Write exists for &quot;**&quot; and an additional entry for any single host is added with Read/Write checked, NFS mounts break.</td>
<td>Remove the additional single host entry to repair the NFS mounts.</td>
</tr>
<tr>
<td>Pool Management</td>
<td>NEX-7663</td>
<td>The Fusion UI allows users to attempt to import a pool even when it is unavailable for any reason. Until the import attempt is made, the user cannot tell the status of the pool.</td>
<td>If a pool import fails, resolve the condition making the pool unavailable and attempt again.</td>
</tr>
<tr>
<td>Usability</td>
<td>NEX-8417</td>
<td>When starting up Fusion using the Firefox browser, there may be some error messages the first time Fusion is started after install. (occurs only with self-signed certificate).</td>
<td>Acknowledge the errors and continue. Refresh the webpage if additional issues are encountered.</td>
</tr>
<tr>
<td>Usability</td>
<td>NEX-8575</td>
<td>In situations where an appliance is heavily loaded, or the user is &quot;fast clicking&quot; between screens it is possible to see timeout errors displayed on the FUSION UI.</td>
<td>Wait a few seconds and click refresh.</td>
</tr>
<tr>
<td>Other</td>
<td>NEX-16610</td>
<td>Occasionally when logging in again after a session has expired, the Fusion orange menu bar will appear to hang with a spinner.</td>
<td>Click F5 to refresh the browser.</td>
</tr>
</tbody>
</table>
Installation and Upgrade Procedures

NexentaFusion Deliverables

- NexentaFusion continues to be delivered as an OVA file to be used on VMware based hypervisors. Download the OVA from the URL in the fulfillment email.

- Additionally, NexentaFusion can be deployed as a docker container and is available via a script from nexenta.github.io.

- NexentaFusion is also available as an instance in the public cloud through the AWS marketplace (https://aws.amazon.com/marketplace/pp/B07B5DMXX2?qid=1530072691678&sr=0-1&ref_=srh_res_product_title)

To Subscribe to NexentaFusion:

- Go to the AWS Marketplace home page, and type Nexenta into the search box.
- Review the NexentaFusion listings.
- Click “NexentaFusion in AWS” listing to subscribe to NexentaFusion.

Follow the instructions in NexentaFusion 1.2 Installation Guide – RevA to install and upgrade the above listed NexentaFusion deliverables.

Note:

- NexentaFusion 1.2 supports NexentaStor 5.1.0 and later appliances, and NexentaCloud 5.1.2.
- NexentaFusion 1.2 can be upgraded from 1.0.3, 1.1.0, 1.1.1, and 1.1.1 FB1.

Where to Find More Information

For additional information, refer to the documents listed here that are posted at https://nexenta.com/products/documentation.

NexentaStor & NexentaFusion Unified Block & File Software-Defined Storage Product Guide

This document includes an overview of NexentaStor and its core components, describes key features. This manual is intended as a guide to NexentaStor concepts and not as a configuration guide.

NexentaStor 5.x Hardware Certification List (HCL)

This document provides a list of certified hardware for NexentaStor 5.x and is intended for Nexenta Partners and Nexenta customer-facing organizations.

NexentaStor 5.1 Installation Guide - RevA

This document includes the instructions to install and upgrade NexentaStor.
NexentaFusion 1.2 Installation Guide - RevA
This document includes the instructions to install and upgrade NexentaFusion.

NexentaStor 5.1 Data-At-Rest Encryption Configuration QuickStart - RevA
This guide covers the details to protect the data at rest.

NexentaFusion 1.2 User Guide and Online Help - RevA
This user guide provides easy to follow step-by-step instructions for common configuration and monitoring tasks.

NexentaStor 5.1 CLI Configuration Guide - RevA
This configuration guide demonstrates the basic steps and commands to configure and manage NexentaStor 5.1 appliances.

NexentaStor 5.1 CLI Reference Guide - RevA
This reference guide provides a summary of the CLI commands. Use it in conjunction with the NexentaStor 5.1 CLI Configuration Guide.

NexentaStor 5.1 HA CLI QuickStart - RevA
This quickstart demonstrates the basic steps and commands to configure and manage the NexentaStor 5.1 High Availability (HA) cluster using the NexentaStor 5.1 Command Line Interface (CLI).

NexentaStor 5.1 vCenter Plugin QuickStart - RevA
This quickstart includes instructions to install NexentaStor 5.1 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 5.1 VVOL Admin Guide - RevA
This admin 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 5.1 High Performance Replication (HPR) User Guide - RevA
This user guide demonstrates how to configure High Performance Replication (HPR) to replicate datasets using the NexentaStor Command Line Interface (CLI).