



StorNext 5.x Artico Archive Gateway Release Notes

StorNext 5 Releases Supported	Release Notes Date
StorNext 5.4.1	May 2018
StorNext 5.4.0.4	August 2017
StorNext 5.4.0.2	December 2016
StorNext 5.4.0.1	November 2016
StorNext 5.3.2.1	July 2016
StorNext 5.3.1	March 2016
StorNext 5.3.0	November 2015
StorNext 5.2.2	August 2015
StorNext 5.2.1	June 2015
StorNext 5.2.0.2	March 2015

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About the Xcellis Foundation SystemaiWARE for Xcellis aiWARE for Xcellis Embedded (DAE) SystemArtico Archive Gateway

aiWARE for Xcellis Embedded (DAE) systems are dual-server appliances based on the Xcellis Workflow Director system, with the aiWARE/Vertione feature enabled, that supports the aiWARE virtual environment for media asset processing.

The system utilizes the artificial intelligence (AI) cognitive analytics technology of Veritone's aiWARE software and the data management capability of StorNext to create a powerful set of tools to derive additional value from your data.

The aiWARE software is designed for on-prem deployment, and operates behind enterprise firewalls, enabling you to exploit Veritone's cognitive engine ecosystem and applications to extract intelligence from content residing on local and private cloud storage.

By combining StorNext with the aiWARE software, the result is a solution that has the ability to search and analyze huge amounts of digital assets quickly, accelerate indexing and metadata tagging of audio and video content while providing near real-time processing for both new and archival content. This solution also reduces errors and labor by leveraging programmatic indexing of video and audio content and dramatically increase the types of metadata tagged to further monetize assets for sponsors and advertisers.

The aiWARE feature support is limited to the speech recognitions processing engine.

The server operates as a StorNext client, includes a StorNext GUI, hosts StorNext Connect, and is supported by the StorNext Connect Install App. Installation is performed by Quantum or Quantum partners only.

For additional information about aiWARE for Xcellis Embedded (DAE) systems, see [About the Xcellis Workflow Director System](#) on quantum.com, since this server is based on the Xcellis Workflow Director system.

About aiWARE for Xcellis Standard and High Performance Systems

aiWARE for Xcellis Standard and High Performance systems are single server appliances that support the aiWARE virtual environment for media asset processing.

The system utilizes the artificial intelligence (AI) cognitive analytics technology of Veritone's aiWARE software and the data management capability of StorNext to create a powerful set of tools to derive additional value from your data.

The aiWARE software is designed for on-prem deployment, and operates behind enterprise firewalls, enabling you to exploit Veritone's cognitive engine ecosystem and applications to extract intelligence from content residing on local and private cloud storage.

By combining StorNext with the aiWARE software, the result is a solution that has the ability to search and analyze huge amounts of digital assets quickly, accelerate indexing and metadata tagging of audio and video content while providing near real-time processing for both new and archival content. This solution also reduces errors and labor by leveraging programmatic indexing of video and audio content and dramatically increase the types of metadata tagged to further monetize assets for sponsors and advertisers.

Similar to Xcellis Workflow Extender (R630) systems, the server operates as a StorNext client, but has no StorNext GUI, and does not host StorNext Connect, and is also not supported by the StorNext Connect Install App. Installation is performed by Quantum or Quantum partners only.

For additional information about aiWARE for Xcellis Standard and High Performance systems, see [About aiWARE for Xcellis \(Standard and High Performance\) Systems](#) on quantum.com.

The Quantum Xcellis Foundation system is an affordable, easy-to-install, simple-to-manage scale-out NAS storage appliance that provides the capacity and performance you need for both today and tomorrow. It is a turnkey solution with the features, performance, and scalability of an enterprise-grade system, sized and priced for smaller workgroups and organizations. Integrated storage tiering efficiently moves less-frequently used data to the cloud or other archive tiers to drive down the cost of long-term storage and preserve valuable free space in Xcellis Foundation.

For more information about the Xcellis Foundation system, see [About the Xcellis Foundation System](#) on quantum.com.

The Artico™ Archive Gateway provides a flexible, low-cost NAS archive appliance, with the ability to scale to store petabytes of data as demand grows. Powered by StorNext® advanced data management policies, Artico stores and retains data in a tiered storage system that intelligently places the data on the right technology at the right time, both on-premise or in the cloud. Combined with StorNext-enabled policies and the data migration tools of Rocket Arkivio Autostor software, Artico enables users to move files seamlessly from primary storage to less expensive storage while maintaining full access to all files, providing the lowest TCO model for storing, accessing and protecting data.

Training and Documentation Resources

[Xcellis Foundation training and documentation](#)

[aiWARE for Xcellis training and documentation](#)

- [Artico \(R630\) training and documentation](#)
- [Artico \(R520\) training and documentation](#)

About StorNext 5

StorNext 5 is a new generation of Quantum StorNext that performs faster, scales farther, and expands flexibility. StorNext 5 has been built from the ground up with a new architecture designed to meet the needs of today's evolving digital workflows.

The complete list of documentation for StorNext 5, including the StorNext 5 Release Notes, can be found here:

<http://www.quantum.com/sn5docs>

What StorNext Releases are compatible with my system?

See the [StorNext Release Compatibility](#) page of the [Appliance InfoHub](#) on quantum.com for further information.

Upgrade StorNext Software and System Firmware

Before upgrading your system, refer to [Known Issues – StorNext 6.x](#). This section contains important information you need to know before upgrading.

See [Upgrade the System \(Upgrade Firmware\)](#) for the steps necessary to upgrade to the latest StorNext release and hardware firmware for your system.

Quantum Appliance Licenses

See [Quantum Appliance Licenses](#) on the [Quantum Appliances InfoHub](#).

General Notes

Refer to the [General Notes](#) section of the [Quantum Appliances InfoHub](#) for important information you should know about your system.

Fixed Issues, Enhancements and Notes – StorNext 5.x

This section lists the fixed issues that affect Artico for different StorNext Releases.

StorNext 5 Releases:

[Fixed Issues, Enhancements and Notes for StorNext 5.4.1](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.4.0.4](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.4.0.3](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.4.0.2](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.4.0.1](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.3.2.1](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.3.2](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.3.1](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.3.0](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.2.2](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.2.1](#)

[Fixed Issues, Enhancements and Notes for StorNext 5.2.0.2](#)

Fixed Issues, Enhancements and Notes for StorNext 5.4.1

This release only changes the base StorNext software. Because there is nothing new or fixed specifically related to your system hardware, there is nothing else to report for this release.

See the [StorNext 5.4.1 Release Notes](#) for information about StorNext software enhancements and fixed issues for this release.

Fixed Issues, Enhancements and Notes for StorNext 5.4.0.4

This release only changes the base StorNext software. Because there is nothing new or fixed specifically related to your system hardware, there is nothing else to report for this release.

i Note: In order to upgrade firmware to StorNext 5.4.0.4, your system must be running StorNext 5.4.0.x.

See the [StorNext 5.4.0.4 Release Notes](#) for information about StorNext software enhancements and fixed issues for this release.

Fixed Issues, Enhancements and Notes for StorNext 5.4.0.3

i Note: StorNext 5.4.0.3 is obsolete and replaced by 5.4.0.4. However, the Fixed Issues, Enhancements and Notes for the StorNext 5.4.0.3 still apply.

See the [StorNext 5.4.0.3 Release Notes](#) for information about StorNext software enhancements and fixed issues for this release.

Fixed Issues, Enhancements and Notes StorNext 5.4.0.2

This release provides an iDRAC firmware upgrade to version 2.41.40.40. This update prevents motherboard failures that, in very rare cases, could occur during a StorNext software upgrade on systems with an iDRAC version earlier than 2.30.30.30. (To determine your system's current iDRAC version, the easiest way is to look at `/opt/DXi/hwdetect/FirmwareReport.txt` and search for the iDRAC string. Another way is to run the command `racadm getversion`)

The following table lists the fix for this StorNext release.

Table 1: Fixed Issues for StorNext 5.4.0.2

CR Number	SR Number(s)	Description
65688	n/a	Update iDRAC firmware to 2.41.40.40.

This release was an enhancement for your hardware only. Because this release did not change the base StorNext software, there are no StorNext software Release Notes for this release.

Fixed Issues, Enhancements and Notes for StorNext 5.4.0.1

i Note: StorNext 5.4.0.1 is no longer supported for upgrades. Upgrade to 5.4.0.2 or 5.4.0.4 instead.

- **Capture State** enhancements to the StorNext GUI, to enhance the method and information captured in various log files for the system. See **Service > Capture State** in the *StorNext User's Guide*, and the online help on the **Capture State** page.

The following table lists the fixed issues/enhancements for this StorNext release.

Table 2: Enhancements for StorNext 5.4.0.1

CR Number	SR Number(s)	Description
63526	n/a	Add upgrade status messages from the upgrading node to be displayed in the limited mode GUI on the running node. See Monitoring upgrade progress - the "Firmware Upgrade Status" page .

See the [StorNext 5.4.0.1 Release Notes](#) for information about StorNext software enhancements and fixed issues for this release.

Fixed Issues, Enhancements and Notes for StorNext 5.3.2.1

i Note: StorNext 5.3.2 is obsolete and replaced by 5.3.2.1.

i Note: Upgrades to StorNext 5.3.2.1 require StorNext 5.3.1 or 5.3.1.1 to be installed prior to the upgrade.

i Note: All Fixed Issues and enhancements that applied to StorNext 5.3.2 also apply to 5.3.2.1 for Artico.

The following table lists the fixed issues/enhancements for this StorNext release. See also [Fixed Issues, Enhancements and Notes for StorNext 5.3.1 on the next page](#).

Table 3: Fixed Issues/Enhancements for StorNext 5.3.2/5.3.2.1

CR Number	SR Number(s)	Description
63928	3711106	The <code>/etc/ld.so.conf.d/cvfs.conf</code> file is now included on the system after fw upgrade to StorNext 5.3.2.1.
62454	3701100	On upgrades to StorNext 5.0 to 5.3.x from StorNext releases prior to 5.0 on HA systems (for Metadata Appliances), the directory <code>/usr/adic/wsar_agent/tmp</code> is created on the nodes during the upgrade process.

See the [StorNext 5.3.2 Release Notes](#) for information about StorNext software enhancements and fixed issues for this release.

Fixed Issues, Enhancements and Notes for StorNext 5.3.2

i Note: StorNext 5.3.2 is obsolete and replaced by 5.3.2.1. However, the Fixed Issues, Enhancements and Notes for the StorNext 5.3.2 still apply.

See the [StorNext 5.3.2 Release Notes](#) for information about StorNext software enhancements and fixed issues for this release.

Fixed Issues, Enhancements and Notes for StorNext 5.3.1

The following table lists the fixed issues/enhancements for this StorNext release.

Table 4: Fixed Issues/Enhancements for StorNext 5.3.1

CR Number	SR Number(s)	Description
62017	n/a	Update <code>glibc</code> for systems to take a CentOS fix for CVE-2015-7547.
61779	n/a	Enhanced R520 systems to honor AC power recovery settings when set manually in system BIOS.
61388	3619338	Enhanced log collection scripts to include additional NAS logging
61157	n/a	Updated NAS version to NAS 1.2.1.
61089	n/a	Enhanced the upgrade process to ensure custom <code>innodb_buffer_pool_size</code> memory settings for MySQL are preserved after firmware upgrades.
61073	3565236	Fixed an issue where <code>hwmond</code> previously didn't catch a failed PSU if the return string contained the extra words "Failure detected".
61070	n/a	Fixed minor spelling errors in the Service Menu
61068	n/a	Fixed an issue which could have caused the firmware upgrade process to fail.
60814	3635792	Fixed an issue where, when hosted applications were run on a server node and active inside a SNFS file system, StorNext services restarts or stops (e.g. service cvfs stop) no longer result in blocked processes, fail overs now occur correctly, and both no longer require a power cycle of the primary server node to rectify the situation.
60744/ 55220	n/a	NFS version 4 is now disabled on CentOS 7 systems, during NAS 1.2.1 installation.

CR Number	SR Number(s)	Description
62017	n/a	Update <code>glibc</code> for systems to take a CentOS fix for CVE-2015-7547.
57627	n/a	After the system was booted, if NICs were present in slots that previously contained NICs with different speeds (Example: 10 GbE vs. 1 GbE), the system would use the same Ethernet alias names defined for the network interfaces as previously-installed NICs. The ethernet alias names shown in the StorNext Metrics GUI page now reflect the change in network device type representing the alias.

See the [StorNext 5.x Release Notes](#) for information about StorNext software updates.

Fixed Issues, Enhancements and Notes for StorNext 5.3.0

The following table lists the fixed issues/enhancements for this StorNext release.

Table 5: Fixed Issues/Enhancements for StorNext 5.3.0

CR Number	SR Number(s)	Description
38291	n/a	Fixed an issue where, after an HA failover, an Admin Alert was previously issued if the MDC node acting as primary attempted to initiate an <code>fs_fmover</code> process on the MDC node acting as secondary while the secondary MDC node was rebooting. This situation applies to all StorNext 5 releases prior to 5.3.0.

See the [StorNext 5.x Release Notes](#) for information about StorNext software updates.

Fixed Issues, Enhancements and Notes for StorNext 5.2.2

The following table lists the fixed issues/enhancements for this StorNext release.

Table 6: Fixed Issues/Enhancements for StorNext 5.2.2

CR Number	SR Number(s)	Description
56291	n/a	Upgrade CentOS to version 6.6 when the StorNext 5.2.2 appliance firmware upgrade is applied.
56583	n/a	Added a way to insert global variables into <code>smb.conf</code> through the command line.

CR Number	SR Number(s)	Description
56717	n/a	Added /var/log/sa contents to support bundle file-list for SAR reports.

See the [StorNext 5.x Release Notes](#) for information about StorNext software updates.

Fixed Issues, Enhancements and Notes for StorNext 5.2.1

The following table lists the fixed issues/enhancements for this StorNext release.

Table 7: Fixed issues/Enhancements for StorNext 5.2.1

CR Number	SR Number(s)	Description
54949	n/a	Files systems can now be used for both SMB and SAN or LAN client access. Accessing the same files via SMB client and SAN or LAN clients now produces consistent file attributes and supports concurrent SMB and SAN/LAN client access to the same file system.
55553	1628792	Updated the default <code>innodb_buffer_pool</code> size for appliances. This change improves Storage Manager performance for systems running the previous defaults. The new default value is: Artico - 10GB
55567	3511046, and 3512842	Changed the sar log time format to improve compatibility with sar graphing tools.
55568	3488100	Added a “screen” utility to the StorNext appliance code to aid troubleshooting and configuration.
55585	3515176	Added the Ubuntu client to the client download drop-down menu in the StorNext GUI.
55593	n/a	The default gateway is now set correctly when no DNS server is specified when configuring the network settings in the Service Menu .
55709	n/a	ADATA USB drives are now properly recognized when plugged into an appliance.

See the [StorNext 5.x Release Notes](#) for information about StorNext software updates.

Fixed Issues, Enhancements and Notes for StorNext 5.2.0.2

i Note: StorNext 5.2.0.2 is the initial release to support the Artico (R520) NAS Storage Appliance.

See the [StorNext 5.x Release Notes](#) for information about StorNext software updates.

Known Issues

This section lists the known issues that affect Quantum Appliances.

CR Number	SR Number	Description	Workaround (if applicable)
70178		Custom-configured settings entered in the <code>/etc/multipath.conf</code> file are overwritten when the system firmware upgrade is applied. The upgrade code prior to StorNext 6.0.6 added required multipath settings to the file. For StorNext releases 5.3.1 to 6.0.5.x, the upgrade process creates a backup of the file as <code>/etc/multipath.conf.bak</code> .	<p>Upgrade to StorNext 6.0.6.1.</p> <p>If you don't upgrade, here are two ways to restore your multipath settings:</p> <ol style="list-style-type: none"> 1. If there isn't a backup of your <code>multipath.conf</code> file, you will have to add the settings into the file using a command-line editor like <code>vi</code>. 2. If the firmware upgrade created a backup settings (like <code>/etc/multipath.conf.bak</code>), or you have created your own backup, copy your custom multipath settings into the current <code>multipath.conf</code> file using a command-line editor like <code>vi</code>. <p>For releases prior to 5.3.1, create a backup copy of your custom <code>/etc/multipath.conf</code> file, for future use. Here's one way:</p> <pre>cp /etc/multipath.conf /etc/multipath.conf.bak</pre>

CR Number	SR Number	Description	Workaround (if applicable)
68096	n/a	There is currently a known issue in CentOS6 where a restart of the NAS services may delay <code>rsyslogd</code> restarts. This appears to be caused by a failed StorNext share mount, which in turn causes NAS services to not fully complete startup until the StorNext share is mounted. This can result in system logging to be lost while the <code>rsyslogd</code> is not running.	Verify all expected StorNext file systems are mounted. If not, manually mount any file systems needed by NAS.
68095	n/a	If NAS Clustering is enabled with NFS, and one or more of the SNFS file systems do not mount when StorNext services are restarted, then the automatic startup of the NAS services could hang indefinitely until that mount point is restarted and remounted.	Manually mount the file system and restart NAS. (See Restart the controller.)
60814	3635792	This was fixed in StorNext 5 Release 5.3.1 (see Fixed Issues, Enhancements and Notes for StorNext 5.3.1 on page 9). When hosted applications are run on a server node and are active inside of an SNFS file system, StorNext service restarts may hang, requiring the server node to be rebooted. Also, stopping StorNext services (using service cvfs stop) on a node currently acting as primary previously can result in blocked processes that prevent fail overs from occurring, and require a power cycle of the primary server node to rectify the situation.	Workaround: Any applications running locally on the server node acting as primary must be stopped prior to any other operations that may result in StorNext being stopped or restarted. This includes rebooting the server node, exiting HA Config Mode, or upgrading firmware.
60774/ 55220	n/a	<p>i Note: This issue was fixed by way of the NAS 1.2.1 release and StorNext 5.3.1. See 60744/55220 on page 9.</p> <p>(NAS-only issue) NFS version 4 is not supported and must be disabled.</p>	There currently is no workaround for NFS v4 support prior to StorNext 5.3.1/NAS 1.2.1. See How to Disable NFS v4 on page 16 . If you are running StorNext NAS and export NFS shares, you must disable NFSv4 .

CR Number	SR Number	Description	Workaround (if applicable)
60614	n/a	Your system, and all other Connect-managed Linux StorNext SAN clients must have the latest Connector installed so that statistics can be passed to StorNext Connect. If a system is managed by StorNext Connect and you upgrade the firmware on that system to StorNext 5 Release 5.3.0 firmware PRIOR to upgrading the StorNext Connect Connector, the Volume Storage widget on the StorNext Connect Dashboard will display no data for those systems.	For steps to take to update the Connect Connector(s) before upgrading system firmware, see Update the StorNext Connect Connector before doing a firmware upgrade . For steps to take if you have already upgraded firmware but did not first update the Connector(s), see Repair a StorNext Connect System After Firmware Upgrades .
56135	n/a	The StorNext GUI does not show the RHEL7 and SLES12 clients in the list of clients available for download. i Note: This issue only affects systems running StorNext 5 Release 5.2.1.	To manually download the client installers for RHEL7 and SLES12: <ol style="list-style-type: none"> 1. Open an SSH connection to one of the server nodes (either node will work) using the IP address assigned to that node on the Metadata network. Manually copy the Redhat7 or SuSE12 .bin file from /usr/cvfs/CLIENTS to an external USB thumb drive or copy over the network to the client system. 2. Continue with the installation procedure for the client for your operating system as described in the <i>StorNext Installation Guide</i> or the StorNext online help.
55384	n/a	If dmnfsthreads is not set on mount, nfsds may be over-committed when there are many NFS processes waiting for offline files.	For managed file systems serving NFS, Quantum recommends using the "dmnfsthreads=16" mount option. This setting ensures that NFS remains responsive when Storage Manager is retrieving data from an archive tier.

CR Number	SR Number	Description	Workaround (if applicable)
55318	n/a	Strange UID on ACL when file created on non ads client.	All systems accessing the StorNext SAN or LAN clients, or the NAS clients, must be part of the same identity domain. Accessing StorNext from different identity domains can result in inconsistent file ownership attributes, as well as potential access problems.
55220	n/a	(See CR 60774/55220 on page 13)	
54451	n/a	StorNext supports case-sensitive file names. For configurations with different client types, such as Windows and Mac sharing the same files, the default case type may be different.	There currently is no workaround for this issue. SMB is operating as expected.
55993/ 54445	n/a	(NAS-only issue) Setting Unix permissions on a Mac Samba client sometimes silently fails. This problem occurs when: <ol style="list-style-type: none"> 1. The Samba mount is done using sysadm credentials. 2. Active Directory is not used. 3. Local Mac credential authentication is used when creating files. 	To make sure the Mac Samba client does not fail, make sure User ID used for the Mac Samba client matches the User ID used for the NAS gateway server. File creation and permission setting changes done while using Active Directory and an active Mac Samba client will now work as expected.
47041		Adding new index to tierfiles tables can delay first TSM start up following system StorNext upgrades to 5.0.1	See TSM Indexing Delay for Large Databases in the Before You Upgrade Firmware section for the workaround.
45702	n/a	If you replace an HDD drive with an SSD or vice versa, the StorNext GUI will show a status of "Missing" and an equivalent RAS ticket instead of displaying an "Incompatible" status.	Replacement drives must be the identical type of drive removed. HDDs can only use HDD spares, and SSDs can only use SSD spares. Replacement drives must also be the same size or larger than the failed drive. The array controller will generate errors if an incompatible drive is used as a replacement.
38128	1395540	Using the GUI while a large Media import is kicked off via the command line can cause the StorNext GUI to timeout or crash.	Wait until a bulk load from tape is finished prior to opening the StorNext GUI.

CR Number	SR Number	Description	Workaround (if applicable)
37916	n/a	Admin alerts are generated for network or FC ports that are disconnected but are configured in the system.	The only way to prevent these alerts from displaying is to remove the network or FC ports that are disconnected from your configuration, unless the ports will only be down temporarily.

Known Issues Workarounds

How to Disable NFS v4

To disable NFSv4 on Artico systems, especially those systems running NAS 1.2.0 or earlier, perform the following on node 2:

Edit the nfs File

1. Open an SSH connection to the appropriate server and use the IP address assigned to the node on the Management or LAN Client network, or use the Service Port IP address, if connected to the Service Port.

Service Port IP addresses (if used):

i Note: Node 2 is the server node sold with single-node (non-HA) Workflow Director and Artico systems.

2. Log in to the server node with the following credentials:
 - User name: **stornext**
 - Password: **<stornext user accountpassword>**

i Note: **password** is the default password for the stornext user account. If the password has been changed, use the current password.

3. Enter **sudo rootsh** to gain root user access.
4. Enter the password for the **stornext** user account again.
5. Edit **/etc/sysconfig/nfs** file. (See [Example: Use vi to Edit the nfs File on the next page](#))
6. Change the value for **RPCNFSDARGS** to **"-N 4"**. When finished, the line must be: **RPCNFSDARGS="-N 4"**

7. Change the value for RPCMOUNTDOPTS to "-N 4". When finished the line must be:
RPCMOUNTDOPTS="-N 4"
8. Save the file.

Restart NFS

1. Enter the following to restart the NFS configuration:
2. Enter the following to restart the NFS server:

After You Restart NFS on Node 2

Repeat both the [Edit the nfs File on the previous page](#) and [Restart NFS above](#) sections on node 1.

If you need to create new NFS shares to export for user access, you may do this now. See the [About the Manage NAS App](#) section of the **StorNext Connect Documentation Center** for information about NAS configuration using StorNext Connect.

Example: Use vi to Edit the nfs File

1. Enter the following:

```
vi /etc/sysconfig/nfs
```

2. Move the cursor to the closing quotation mark in RPCNFSDARGS.
3. Enter the following:

```
i -N 4
```

4. Write the file and quit vi as follows:

```
:wq
```

5. For this example, you would have to [Restart NFS above](#) and then repeat both the [Edit the nfs File on the previous page](#) and the [Restart NFS above](#) sections again on node 1.
6. Close the SSH session for the server(s).

Re-enable DDM on the Secondary Node After HA Failover

Once the MDC node acting as secondary finishes rebooting and becomes functional again, use `fsddmconfig` (or the GUI) from the server node currently acting as primary to re-enable DDM for the standby server node, as follows:

1. Open an SSH connection to the appropriate server and use the IP address assigned to the node on the Management or LAN Client network, or use the Service Port IP address, if connected to the Service Port.

Service Port IP addresses (if used):

i Note: Node 2 is the server node sold with single-node (non-HA) Workflow Director and Artico systems.

2. Log in to the server node with the following credentials:
 - User name: **stornext**
 - Password: **<stornext user accountpassword>**

i Note: **password** is the default password for the stornext user account. If the password has been changed, use the current password.

3. Enter **sudo rootsh** to gain root user access.
4. Enter the password for the **stornext** user account again.
5. On the command line of the system enter the following:

```
# fsddmconfig -u -s e
standby_system_hostname
```

If a system running DDMs periodically displays an **Admin Alert** when it fails over, cycles a client node, or upgrades while the server node operating as secondary is rebooting but not completely down, change the timeout value to allow more time to communicate with the node. Update the TSM configuration parameter **DDM_CLIENT_RETRY_TIMEOUT** from the default 30 seconds to a larger value depending on how long the node is taking to reboot. In the event the server node acting as secondary will be down for an extended period of time, the node should be taken offline. Additionally, if this parameter is set too high, and the standby server does not come back, the command that is currently running (e.g., store or retrieve) will not return until after the specified timeout.

For more information about the **DDM_CLIENT_RETRY_TIMEOUT** parameter that can be placed into the **fs_sysparm_override** configuration file, refer to the **/usr/adic/TSM/config/fs_sysparm.README** file.

⚠ Caution: Incorrect modification of the **fs_sysparm_override** configuration file can cause a serious, adverse effect on StorNext functionality. Before modifying this file, Quantum recommends you to contact Technical Support.

Contacting Quantum

More information about StorNext is available on the Quantum Service and Support website at <http://www.quantum.com/ServiceandSupport>. The Quantum Service and Support website contains a collection of information, including answers to frequently asked questions (FAQs).

Quantum Appliance Upgrades

To request a StorNext software upgrade for Quantum appliances, open a support ticket at:

<http://www.quantum.com/customercenter/>

For further assistance, or if training is desired, contact the Quantum Technical Assistance Center.

Contacts

For information about contacting Quantum, including Quantum office locations, go to:

<http://www.quantum.com/aboutus/contactus/index.aspx>

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started at:

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For further assistance, or for training opportunities, contact the Quantum Customer Support Center:

Region	Support Contact
North America	1-800-284-5101 (toll free) +1-720-249-5700
EMEA	+800-7826-8888 (toll free) +49 6131 324 185
Asia Pacific	+800-7826-8887 (toll free) +603-7953-3010

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