



D-Link System, Inc.™

xStack Storage DSN-2100, DSN-3200 & DSN-3400

V1.6.1 Release Notes

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1 Introduction

Note: For the remainder of this document, issues that pertain to the DSN-2100, DSN-3200 and DSN-3400 products will be identified as DSN-2100/3200/3400.

D-Link Systems, Inc.[™] is shipping the next firmware version release, V1.6.1 for the DSN-2100/3200/3400 products. The V1.6.1 release notes identify what is included and what limitations have been identified as part of this release. The V1.6.1 release has all key functionality, with verification completed to support the customer base for the DSN-2100/3200/3400 products.



The V1.6.1 release has been identified as a mandatory release and should be implemented as soon as possible.

The V1.5.1 release must be installed as the first step in upgrading to the V1.6.1 release. If you have not done so previously, please upgrade to V1.5.1 first followed by upgrading to V1.6.1.

1.1 Purpose

The purpose of this document is to communicate the release of the DSN-2100/3200/3400 product firmware V1.6.1 release. This document will include what is identified as supported functionality, what was originally supported, but not part of this release and what errata and caveats that may effect the operation of the DSN-2100/3200/3400 products.

1.2 Scope

This document is a **release note** on the V1.6.1 release. It is not a product spec, nor does it specify the total functionality of the DSN-2100/3200/3400 products.

1.3 Related Documents

DLink XStack Storage User's Guide

1.4 Out of the Box – Update and or Installation Requirements

The V1.6.1 release is available as a field upgrade that can be applied against firmware V1.5.1.36. Any DSN-2100/3200/3400 product having an earlier version of firmware must first be upgraded to V1.5.1.36 before installing this release.

There has been an issue found with interaction of the DSN-3200/3400 Management Console and Java J2SE Release 5. D-Link Systems continues to work through the issue and provide the most up to date operation and capability where possible.

This issue requires that the workstation accessing the DSN-2100/3200/3400 Management Console, under firmware V1.6.1 release, use **Java J2SE Release 1.4.2** (<http://java.sun.com/j2se/1.4.2/>). In other words, the 1.4.2 version of Java must be installed on the PC system that will attach to the management port of the DSN-2100/3200/3400 and host the management console. This should be done prior to the first connection to the DSN-2100/3200/3400 management port.

2 Product Feature Status

All of the existing product features from DSN-2100/3200/3400 products running version 1.5.1 are included in this release, including support for running the DSN-2100/3200/3400 Management Console from a host system with Windows XP, Windows Server 2003, Windows Server 2008 or Windows Vista. In addition, support is available for Microsoft Virtual Disk Service (“VDS”) with Windows 2003 Server, which allows you to use any VDS-based applications (such as Microsoft’s **DiskRaid** utility and **Storage Manager for SANs** application) to configure and manage any DSN-2100/3200/3400 product. For more information, please refer to the appropriate Microsoft documentation. The following are new or updated features in this release.

2.1 Changed the default battery policy from v1.5

The default battery policy has been changed from “**Ignore**” to “**Write-Through**” to provide better protection against data loss when the system battery fails or is not fully charged. This only affects new system installations; the battery policy is unchanged for existing systems.

2.2 Compatibility with Windows Server 2008 and Windows Vista

The system now fully supports the SCSI “Persistent Reservation” feature in Windows Vista or Windows Server 2008.

2.3 Enhanced support for Linux versions from v1.5

Improvements for Redhat, SUSE and other Linux versions are included in this release:

- Corrected various “Bug Check” errors that were caused by specific (TCP) network layer conditions
- Increased compatibility with latest stable release open-iscsi initiator v2.0-865.15
- Improved handling of higher network traffic loads

2.4 Improved version management of the Java Web-Start download from v1.5

You no longer need to manually clear the Java Cache when launching a newly-installed version of the Management Console software.

2.5 Enhanced support for VMWare ESX Server from v1.5

The following improvements are included in this release:

- ESX Server does not take as long to negotiate connectivity with the software iSCSI initiator during boot
- No longer experiencing excessive “Reservation Conflict” warning messages in the Event Log
- Corrected various “Bug Check” errors that were caused by specific (TCP) network layer conditions
- Improved general VMware Datastore browsing on ESX 3.0.2 and 3.5
- Improved the rescanning for iSCSI Target Nodes
- Specified the maximum number of target nodes (32) that can be presented to a single physical host server. Previously this number was not specified, but is now significant to shared storage supporting multiple virtual servers per physical server

2.6 Miscellaneous fixed issues from v1.5

The following problem from previous releases is fixed in this release:

- **Kernel BUG at ichar_dev.c:1608**

In some rare instances a board failed to boot-up with the above bug check message. This issue is resolved with an improved run-time environment and updated driver code for the storage controller.



After a successfully upgrading your system to the v1.6.1 release, be sure to save a new Configuration File by using the following procedure:

1. From within the Management Console GUI, click on the “**File**” menu
2. Click on “**Save xStack Configuration**”
3. Navigate to where you wish to save the configuration file and enter the filename
4. Click on “**Save**”

3 Firmware Upgrade Procedure

3.1 Upgrade for systems running v1.5.1

For an existing system that is running version 1.5.1, you should obtain the upgrade_image.DLink.v1.6.1.23 file from the D-Link support website. (For USA it is support.dlink.com).

Note: If your host system is running Windows XP, be sure to disable the Windows firewall before starting the firmware upgrade.

Use the following procedure from the Management Console GUI to install this new firmware image:

1. Select the **Physical Resources** tab in the left-most frame
2. Select the **xStack** item under Physical Resources
3. In the menu bar, select **View**, then select **Firmware Upgrade**
4. In response to the prompt “**Upgrading the firmware will require a restart of your xStack; Do you want to continue?**”, click **OK**
5. Browse for the firmware image file that you wish to upload, then click **Open**.
6. A progress bar will appear to show the progress of the firmware upload process.
7. After the firmware image is uploaded, a message prompts you to restart the system so that the new firmware image can take effect, and you should click **OK**.
8. When the system restarts, the Management Console GUI will be closed, and you would wait approximately 15 minutes for the system to complete the restart process without interruption.



The upgrade from version 1.5.1 to version 1.6.1 takes considerably longer than all previous firmware upgrades, and the upgrade process should not be interrupted. In addition, the upgrade from version 1.5.1 to version 1.6.1 is **not** reversible, and it can only be performed once. Any further firmware upgrades that are needed must be performed with v1.6.1 as the starting point.

4 Known Issues and Limitations

4.1 Management port network connection

Be sure to connect the Management Port network cable before powering-on the system. Otherwise, the negotiated network link speed may not be optimal for your network environment.

4.2 Advanced features for Windows

The following are known issues and limitations for the Advanced Features for Windows:

- The DSN-2100/3200/3400 VDS Provider does not currently support the creation of network portals. Therefore the iSCSI network configuration must be performed using the Management Console GUI.
- If the Management Console GUI is open while making any configuration changes to portals, volumes, or initiators to a target through the DSN-2100/3200/3400 VDS Provider, those changes may not be reflected through the Management Console GUI. Simply restart the DSN-2100/3200/3400 Management Console to obtain the latest system status.

For more detailed information, refer to the Microsoft documentation for DiskRaid and Storage Manager for SANs.

4.3 Elimination of the “iSCSI Immediate Data” option

This selection is no longer available in the **Create iSCSI Node Wizard**. Instead, the system will always negotiate a setting of “**off**” with an iSCSI initiator that requests this mode. There is no known effect on interoperability with any third-party iSCSI initiators.

4.4 Volume expansion considerations

A volume can be expanded via either the Expand Volume or Reconfigure Volume options, but the Expand option requires that there be enough drives to continue the existing extent structure with no modifications. Therefore the Reconfigure option should be used under most circumstances for expanding the size of a volume.