



iStor Networks, Inc.[®]

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iS512, iS512-10G, iS325, GigaStorATX and
GSC-408

Version 2.0.0 Release Notes

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1 Introduction

iStor Networks, Inc. is shipping the newest version release, v2.0.0 for the integraStor® family of products, including all GigaStorATX and GSC-408 controllers and iS325, iS512 and iS512-10G systems. The v2.0.0 release notes identify what is included and what limitations have been identified as part of this release.

1.1 Purpose

The purpose of this document is to communicate the release of the iStor Product v2.0.0 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 integraStor product family. This document is a release note on the v2.0.0 release. It is not a product spec, nor does it specify the total functionality of the iStor products.

1.2 Related Documents

- *iStor iS512 Hardware Reference Guide (document number iS512HWRF)*. This guide provides the hardware information for installing the integraStor iS512 storage system.
- *iStor iS325 Hardware Reference Guide (document number iS325HWRF)*. This reference guide provides the hardware details for installing, configuring, and using the integraStor iS325 storage array.
- *integraSuite® Management Center Software User's Guide (document number iSMCSWUG)*. This guide provides the information needed to configure and manage storage on the storage system using the integraSuite graphical user interface.
- *integraSuite Command Line Interface User's Guide (document number iSCLIUG)*. This guide provides the information needed to configure and manage storage on the storage system using the integraSuite's command line interface.
- *iStor Virtual Disk Services Guide (document number D000045)*. This guide describes how to use Microsoft Virtual Disk Services (VDS) to manage the iStor storage arrays.
- *iStor Terminology Guide (document number iSTG)*. This guide is designed to assist you in the understanding of storage and SAN terminology that may be used in relation to the integraSuite Management Center and the storage system. You may want to print this guide while reviewing the information and concepts in this document.

1.3 Update and Installation Requirements

The v2.0.0 release is available as either an initial factory installation or as a field upgrade for the following products:

- **GigaStorATX** or **GSC-408** controller or an **iS325** system running v1.6.x software
- **iS512** system running v1.6.x software

Any systems that are running v1.5.1 software or earlier must first be upgraded to version 1.6.x. For more information about the software upgrade process, please refer to your existing documentation (**Chapter 4.1 “Launching the GigaStor Management Console”** in the GigaStor Functional Guide or **Chapter 5.1 “Launching the iS512 Storage System Management Console”** in the iS512 User's Guide).



The v2.0.0 release requires that the **Java Runtime Environment 6 (JRE 6) Release 1.6.0.0, or later** (<http://java.com>) is installed on the system that will serve as the management host. The Java Runtime Environment software must be installed prior to the first connection to the integraStor Management Center.

2 Product Features and Enhancements

All of the existing product features from version 1.6 are included in this release, including support for running the integraSuite Management Center from a host system with Windows XP, Windows Server 2003, Windows Server 2008 or Windows Vista. In addition, support for the 32-bit version of Microsoft Virtual Disk Service (“VDS”) is available for 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 integraStor product. For more information, please refer to the appropriate Microsoft documentation.

The following are new or updated features in this release.

2.1 New User Interface Look-and-Feel

This release includes a new improved graphical user interface with updated graphics and a streamlined approach for viewing and managing multiple integraStor systems from a single location. This new graphical user interface is still a Java-based application that now requires the Java SE Runtime Environment v1.6 or later. For each integraStor system, the following four views are available:

- **Volumes and iSCSI Sessions** (sorted by either Volume Name or iSCSI Initiator Name)
- **Physical Storage** (Hard Disk Drives)
- **System Administration** (System Event Log, User Accounts, Software Upgrade, Shutdown)
- **Network Settings** (IP addresses for the Management Port and Data Ports, LAG’s, VLAN’s)

Status and various actions are available for the system elements that are presented in each view. In addition, the “**F5**” key can be used to refresh any status information. For more information about the new user interface, please refer to the integraSuite Management Center Software User’s Guide.

2.2 Simplified Target Node Creation

This release simplifies the configuration and management of the system by providing a unique target node for each volume that you create, and all targets are presented on all network portals. There is now a one-to-one relationship between a volume and its target node, and the target name now includes the volume name for easy identification on your host system. In addition, the target name now uses the “**iqn**” format instead of the “**naa**” format. Therefore, you will need to remove the old target names from the iSCSI initiator on your host, and re-discover the new targets before you can login and access the data stored in your volumes.

If you previously had multiple volumes assigned to the same target node, each of those volumes will now appear with its own unique target node, and you will need to reconfigure the iSCSI initiators on your host system to discover and login to the revised target names. Similarly, if you previously had multiple target nodes assigned to a single volume, that volume will now appear with its own unique target node. iStor Networks will provide technical assistance to any customers needing help with this one-time change. For more detailed information about the upgrade process, please refer to the ***Version 2 upgrade procedure document*** (TechTIP_integraSuite_v2.pdf), which is available on the iStor Networks website.

2.3 New Startup Wizard

The initial browser screens have been updated to simplify the initial configuration of the system, including the ability to define Network Portals (including IP Address, Network Mask and Gateway Address) for each of the iSCSI data ports on your system. In addition, the system no longer requires a reboot after completing the Start-Up Wizard, unless the Management Port IP address is changed.

2.4 Improved Event Log Reporting

This release reduces the amount of technical information that is presented in the Event Log, to make it easier to identify and understand Warning and Error event types. In previous releases, the Event Log contained a large number of entries that were only meaningful to the developers of the system.

2.5 Command Line Interface (CLI)

A new command line interface allows you to send text-based commands to the integraStor to configure and manage the system. This capability also allows you to construct automated scripts for performing repetitive operations across multiple systems. To access the CLI, you must install a Windows-based client application by clicking on the **Advanced Features for Windows** link on the main browser page. For more information, refer to the *integraSuite Command Line Interface User's Guide*.

2.6 Support for certain 1.5Gbps SATA Hard Drives for iS512

The restriction prohibiting all 1.5Gbps SATA hard drives in all primary and expansion arrays has been withdrawn. Refer to the *iStor-InAble*d hardware compatibility matrix to view the list of qualified SATA hard drives that can be used with the iS512 system.

2.7 Support for iS512-10G

The new iS512-10G system is supported by this software release.

2.8 Miscellaneous Fixed Issues from v1.6.x

The following problems from previous releases have been fixed in this release:

- The Ready/Fault LED on iS512 system enclosures did not turn off upon system shutdown
- The iS512 Management Port link speed did not connect at the fastest possible speed if the network cable was connected after the system completed its startup sequence



After a successfully upgrading your system to the v2.0.0 release, it is recommended to save a new System Configuration File by using the following procedure:

1. From within the Management Center GUI, click on the “**System Administration**” item for your specific system in the **View** panel
2. Click on the “**Settings**” tab
3. Click on the “**General**” leaf (if it is not already selected)
4. Click on the “**Save**” button below the “**integraStor Configuration**” heading
5. Navigate to where you wish to save the configuration file and enter the filename
6. Click on “**Save**”

3 Software Upgrade Procedure

3.1 Upgrade for Systems running v1.6.x

For any existing iS325 or iS512 system that is running software version 1.6, you should obtain one of the following binary files from iStor Networks or your reseller:

| System Type | File Name | File Size | Comments |
|------------------------|---|------------------|--------------------------------|
| iS512-Series | FUFI_2_0_0_119.iStor_iS512 | 37,143,514 bytes | For iS512 systems only |
| iS325 | FUFI_2_0_0_119.iStor_iS325 | 36,676,077 bytes | For iS325 systems only |
| GigaStorATX or GSC-408 | FUFI_2_0_0_119.iStor_GigaStorATX | 36,679,842 bytes | Generic, no enclosure services |
| Other | [contact your reseller] | -- | For other specific enclosures |

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

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

1. Select the **Physical Resources** tab in the left-most frame
2. Select the **integraStor** item under Physical Resources
3. In the menu bar, select **View**, then select **Software Upgrade**
4. In response to the prompt “**Upgrading the software will require a restart of your integraStor; Do you want to continue?**”, click **OK**
5. Browse for the software image file that you wish to upload, then click **Open**.
6. A progress bar will appear to show the progress of the software upload process.
7. After the software image is uploaded, a message prompts you to restart the system so that the new software 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 4 minutes for the system to complete the restart process without interruption.

3.2 Personality Toolkit Base Images

Resellers and system integrators who prepare customized software images for an iStor controller in their own enclosure should select one of the following base images in the Personality Toolkit, depending on the starting software version of the system you wish to upgrade:

| System Type | File Name | File Size |
|---|---|------------------|
| iS325, GigaStorATX or GSC-408 Based Platforms | iStorOnlineImage.2.0.0.119-GigaStorATX | 68,087,042 bytes |
| iS512-Based Platforms | iStorOnlineImage.2.0.0.119-GigaStorMFF | 68,971,225 bytes |

4 Known Issues and Limitations

4.1 iS512-Series Airflow Optimization

To ensure proper airflow and cooling of the system, every drive slot in the primary enclosure and any expansion enclosure must contain one of the following items:

- Drive carrier with a hard disk drive installed
- Drive filler with no hard drive installed

There should be no empty drive slots or empty drive carriers installed. Similarly, both of the controller bays on the rear of iS512 enclosure should contain either a controller or a blank-off plate.

4.2 Connection of iS512-SX Expansion Arrays

When connecting two iS512-SX Expansion Arrays to the iS512 or iS512-10G system, only one iS512-SX Expansion Array should be connected to each of the SAS Expander ports (identified as EXP-0 and EXP-1) on the back of the iS512 controller. Doing so will also improve performance due to more evenly balanced I/O loads across the SAS Expander ports. It is not possible to daisy-chain multiple iS512-SX arrays from a single SAS Expander port at this time.

4.3 Serial Diagnostic Port Baudrate for Existing ATX Platforms

All existing ATX-based platforms operate the serial diagnostic port at a baudrate of 9600bps. Upon upgrading an ATX-based platform from v1.6.x to v2.0.0, the baudrate will change to 115,000bps. Any existing serial connection that is running at 9600bps should be closed before performing a software upgrade, and it can be re-opened at 115,200bps after the software upgrade has completed.

4.4 VDS Hardware Provider

VDS does not support the creation of Network Portals. Therefore the iSCSI network configuration must be performed using the Startup Wizard or the integraSuite Management Center GUI. For more detailed information, refer to the *integraStor Virtual Disk Services Guide* and the Microsoft documentation for DiskRaid and Storage Manager for SANs.

5 Communication and Support

This section outlines the support procedure and where you can get help if a problem exists.

For systems that do not bear the iStor brand, contact the reseller from whom you purchased the system.

Please read the Quick Start Guide(s) and User's Guide documentation before attempting to set up the system.

For immediate installation support questions please contact your local iStor Value-Added Reseller or contact iStor technical support directly at support@istor.com. For end-users within the United States or Canada, please call (800) 689-1409.

To obtain technical support for an integraStor iS325 or iS512 system you must first register your system by filling out the iStor Product Registration form included in the shipping carton or available at <http://www.istor.com/support/TechnicalSupport.cfm>.

For the latest version of any documentation or software, including software release notes, please visit <http://www.istor.com/support/TechnicalSupport.cfm>.

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