IBM XIV Storage System
GUI and XCLI 4.3.1

Release Notes

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Release Notes

These release notes are for the IBM® XIV® Storage System GUI and XCLI version 4.3.1. This release features bug fixes.

Release date
19 January 2014

Supported microcode releases
This version supports all IBM XIV releases.

On IBM Hyper-Scale Manager

IBM Hyper-Scale Manager was previously named IBM XIV Multi-System Manager.

Working with the IBM Hyper-Scale Manager

IBM XIV recommends to use the IBM Hyper-Scale Manager and an XIV GUI in Manager mode if you have more than 10 systems.

Compatibility

- XIV GUI 4.3.1 is compatible with IBM Hyper-Scale Manager 1.4.

Fixed on this release

UI-262640 GUI gets stuck and behaves strangely

Changing one of the Operating System display options while the XIV GUI is open could lead to some of the text fields to be inaccessible, some multiple-selections are not available and the **expand** and **collapse** icons are not available. Moreover, the GUI may get stuck.

UI-262155 Invoking XCLI commands through external scripts is slow

In some cases, calling the XCLI from a script may cause a performance degradation, comparing to GUI 4.0.

UI-262645 Strange blue bar and column headers malfunction

When switching font smoothness or working in remote desktop, there are visual problems such as column headers and a blue bar on the top of the window.

UI-262648 Running XCLI from `cron` in Linux fails

Cannot use XCLI for Linux from `cron`.

What's new in XIV GUI and XCLI version 4.3

Version 4.3 features the following:

Storage encryption
The XIV GUI supports the XIV enabled Data-at-Rest encryption through a variety of task and views, including:

- Introducing a security administrator role, who is the only role that has access to encryption tasks
- Managing key servers
- Managing recovery keys
- Enabling the encryption

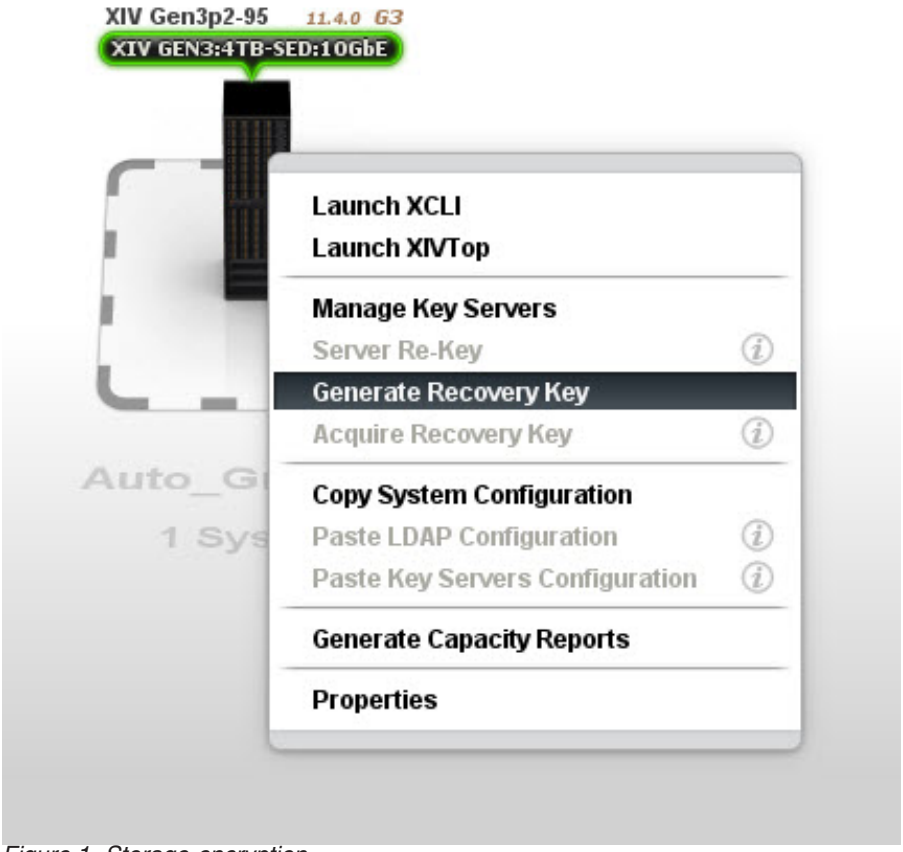

Figure 1. Storage encryption

XCLI and XIVTop load faster

The XIV XCLI and XIVTop applications are improved to allow for:

- The XCLI console to load faster
- The XCLI command-line application to execute faster
- The XIVTop application to load faster

Host Capacity Information

The user sees aggregated data of volumes for each host and cluster (total mapped volumes size and total used size). This data is also exported to CSV.

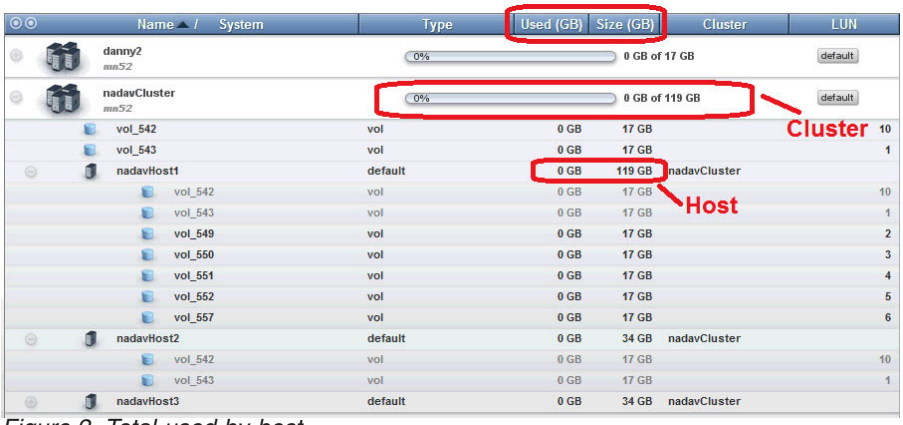

Figure 2. Total used by host

Capacity planning

The IBM Hyper-Scale Manager collects usage statistics including forecasting the future use of XIV systems and pools. This statistics is available for external analytics tools.

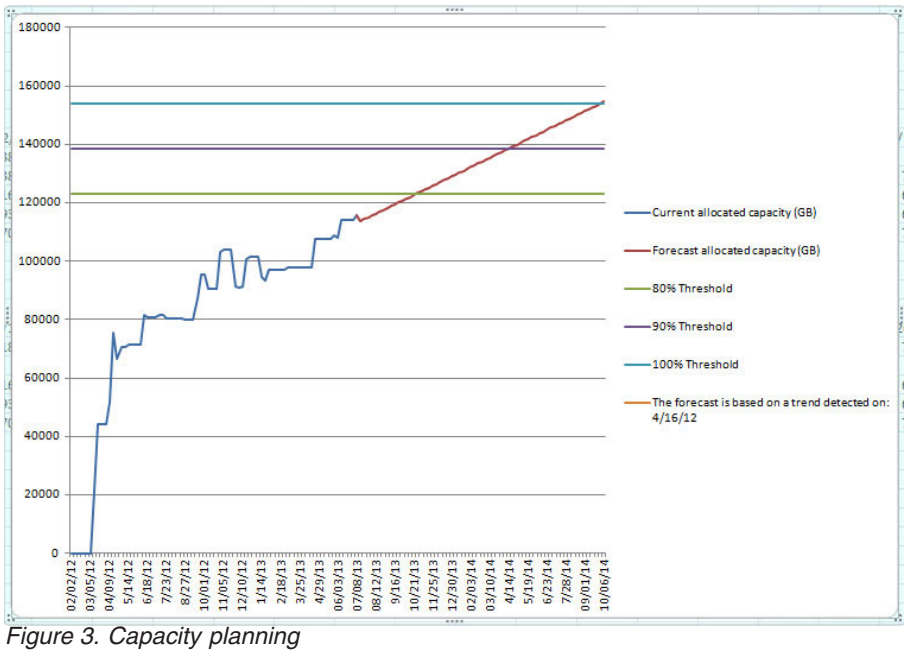

Figure 3. Capacity planning

Multi-system configuration enhancements

Multi-system configuration allows to change the configuration on a large number of XIV systems within a single click. This release adds the following options:

- Editing the user's access control rights - Providing the user with access rights to multiple hosts and clusters within a single click.
- Adding and editing hosts, clusters and host ports.

Management Tools documentation set

The documentation for this release of the IBM Hyper-Scale Manager contains instructions for each installation type and an operations guide that is common to both.

Virtual Appliance installation

- Installation Guide for Virtual Appliance
- Quick Start Guide for Virtual Appliance

Application installation

- Installation Guide Application
- Quick Start Guide for Application

IBM Hyper-Scale Manager

These documents are common to both installation types.

- Operations Guide
- IBM Hyper-Scale Manager Release Notes

XIV GUI

XIV GUI Release Notes.

Specifications

GUI specifications

The XIV GUI runs on either Direct mode or Manager mode. Additionally, the XIV GUI installed on a 64-bit OS has different specifications than 32-bit OS.

Direct mode

CPU Dual core

Memory

Up to 25 systems

32-bit and 64-bit: 700MB

More than 25 systems

32-bit: 1.1GB

64-bit: 1.5GB

Max number of XIV systems monitored by a single XIV GUI in direct mode is:

81

Best practice: IBM XIV recommends to use the IBM Hyper-Scale Manager and an XIV GUI in Manager mode if you have more than 10 systems.

Server mode

CPU Dual core

Memory

500MB

Allowed latency between a single XIV GUI and the IBM Hyper-Scale Manager:

Max of 50ms

Supported OS for XIVGUI, XCLI, XIVTOP

Windows

- Windows XP (32 bit)
- Windows XP (64 bit)
- Windows Server 2003 (32 bit)
- Windows Server 2003 (64 bit)
- Windows Server 2008 (32 bit)

- Windows Server 2008 (64 bit)
- Windows Server 2012 (64 bit)
- Windows 7 (32 bit)
- Windows 7 (64 bit)
- Windows Vista (32 bit)
- Windows Vista (64 bit)
- Windows 8 (32 bit)
- Windows 8 (64 bit)

Make sure you install the relevant package (64-bit or 32-bit) according to your OS type.

Linux

- Linux Red Hat Enterprise 5
- Linux Red Hat 6.4 (32 bit)
- Linux Red Hat 6.4 (64 bit)

Mac OSx 10.7

OSx 10.8

Additional supported OS for XCLI only

AIX AIX 6

AIX 7

Oracle Solaris 11 (SPARC)

Solaris 11 (INTEL)

HPUX HPUX 11i v3 (IA64)

Limitations

UI-243770

Multi-system copy and paste of LDAP configuration has the following limitations:

XIV systems of all versions below 10.2.2
LDAP configuration can not be copied from these versions.

XIV systems of versions between 10.2.2 and 10.2.4
The feature is supported up to version 10.2.4.

LDAP configuration can not be copied from versions 10.2.4 and below to versions above 10.2.4.

Versions above 10.2.4
The feature is supported among all versions above 10.2.4.

LDAP configuration can not be copied from versions above 10.2.4 to versions 10.2.4 and below.

UI-247041

Changing the PC local time when the GUI is open, may also change the system time.

Workaround:
Restart the GUI.

UI-261561

An untrusted XIV system (a system that is not authenticated via a certificate) is displayed as trusted. Removing an XIV system's certificate with the `xcli -C remove` XCLI command and then trying to connect to this system succeeds. This case happens as long as the XCLI server is up.

Workaround:

Log out of the XCLI server and log in again.

XIV GUI Upgrade Notice

UI-262093

Upgrading the XIV GUI to release 4.3 over MS-Windows 8 requires exporting the systems list prior to the upgrade and importing the list right after the upgrade.

Known issues

UI-262676

Installing the IBM XIV on AIX might result in *InstallAnywhere* reporting:

"This installer was created with an unlicensed version
of InstallAnywhere. The evaluation period has expired.
Please contact sales@flexerasoftware.com about licensing."

This message results from a bug in *InstallAnywhere*. The actual issue is a lack of free space.

Workaround:

Free some space in the `/tmp` and `/opt` folders.

Known issues - Windows only

UI-243418

The XIV GUI does not launch if the following env variables are defined:

- IBM_JAVA_OPTIONS
- JAVA_TOOL_OPTIONS

Workaround:

Delete the definition.

UI-253185

The GUI must be installed on a dedicated directory, as the uninstallation erases it completely.

UI-261999

The option to determine where an imported certificate will be stored does not work. The certificate will be stored on: `"C:\Users\{UserName}\AppData\Roaming\XIV\GUI12\properties"` regardless of the address that is stated by the `-h` parameter.

Workaround:

Import the certificate using the IBM Hyper-Scale Manager.

Features we would like you to know of

Multi-system configuration

Multi-system configuration is available for:

- LDAP configuration
- Support parameters
- Pool alert thresholds
- Event rules configuration
- Key server configuration (for SED enabled XIV systems)
- Adding and editing users and user groups
- Adding and editing hosts, clusters and host ports

Connecting to the IBM Hyper-Scale Manager

The IBM Hyper-Scale Manager enhances and improves the way to manage multiple XIV systems. The GUI allows to connect to a IBM Hyper-Scale Manager using an access code.

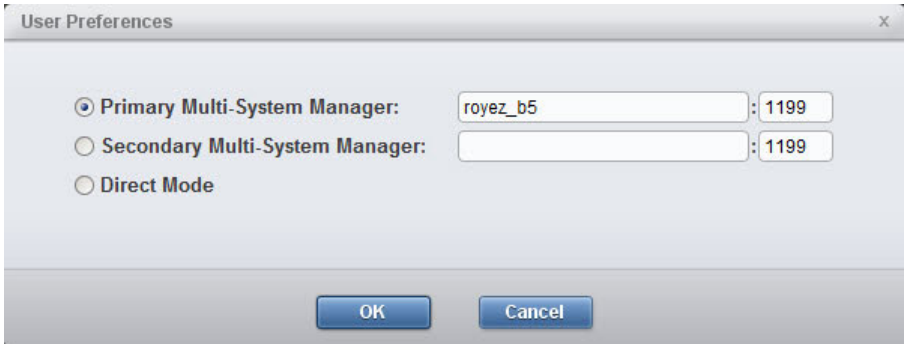

Figure 4. Connecting to the IBM Hyper-Scale Manager

Upgrading the IBM Hyper-Scale Manager from the GUI

The IBM Hyper-Scale Manager can be upgraded from the GUI. Whenever it is opened in Manager mode, the XIV GUI checks the version of the IBM Hyper-Scale Manager. If the version is not the latest, the user is asked to approve upgrading it.

Figure 5. Upgrading the IBM Hyper-Scale Manager from the GUI

System Selector

The multi system component allows to easily browse for a system or search it, immediately viewing whether it is connected as well as its status.

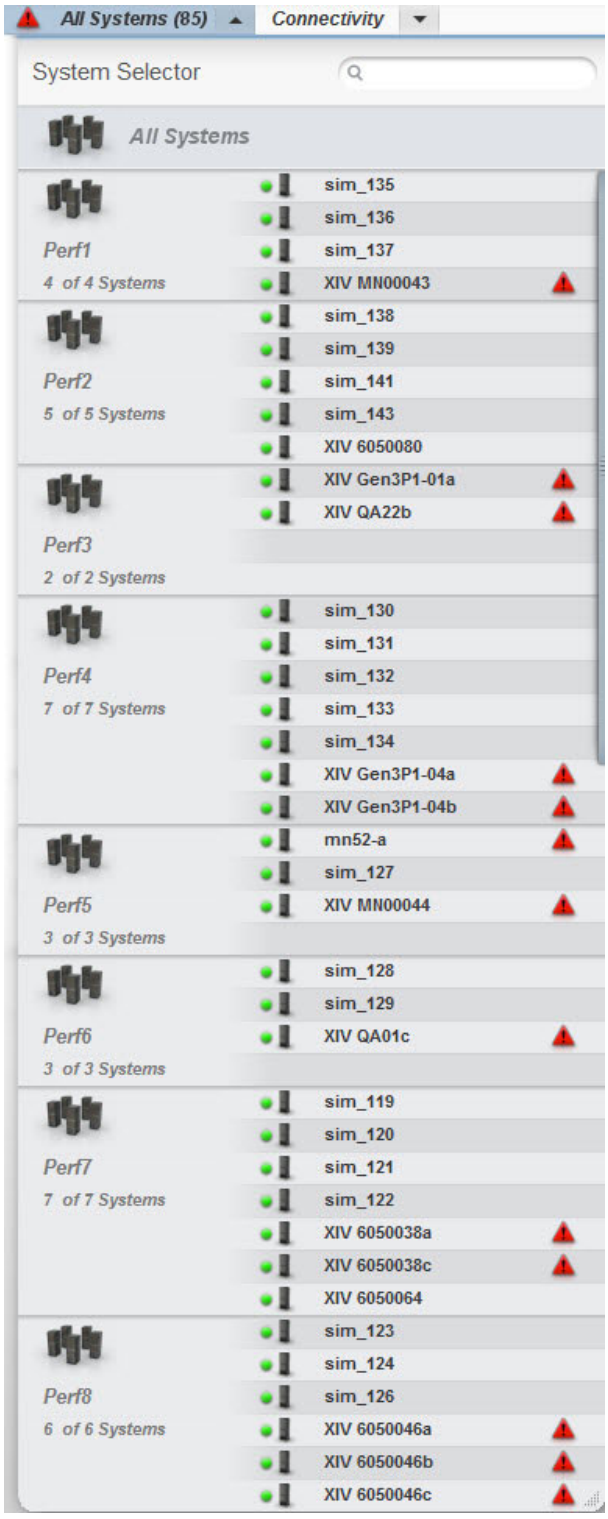

Figure 6. System selector

Enabled by using the IBM Hyper-Scale Manager, multiple system selection is also available from each view, providing the ability to select a sub-set of XIV systems to narrow any view.

Hiding systems

The GUI allows to focus on XIV systems of interest through determining which of the systems will be seen on screen.

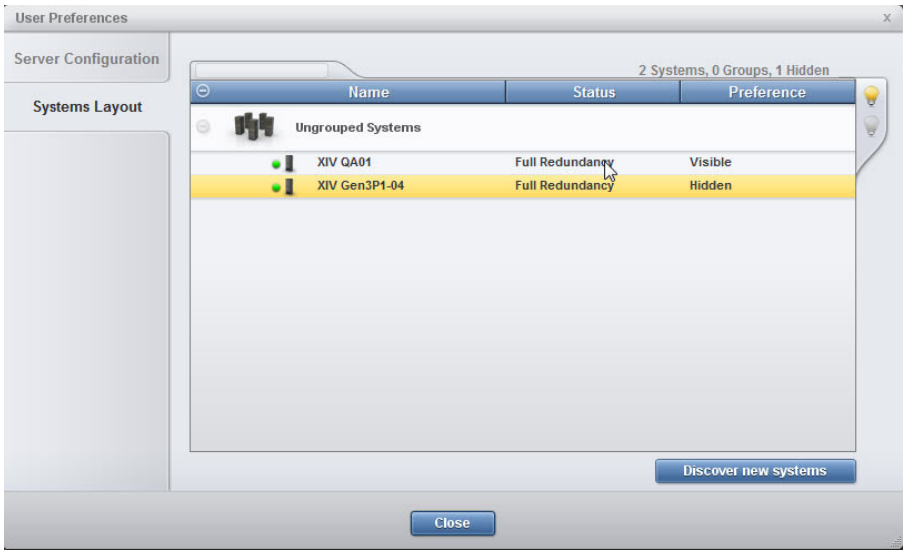

Figure 7. Hiding a system

Tiles, List and connectivity views

The GUI allows for viewing XIV systems in multiple formats for enhanced ease of use.

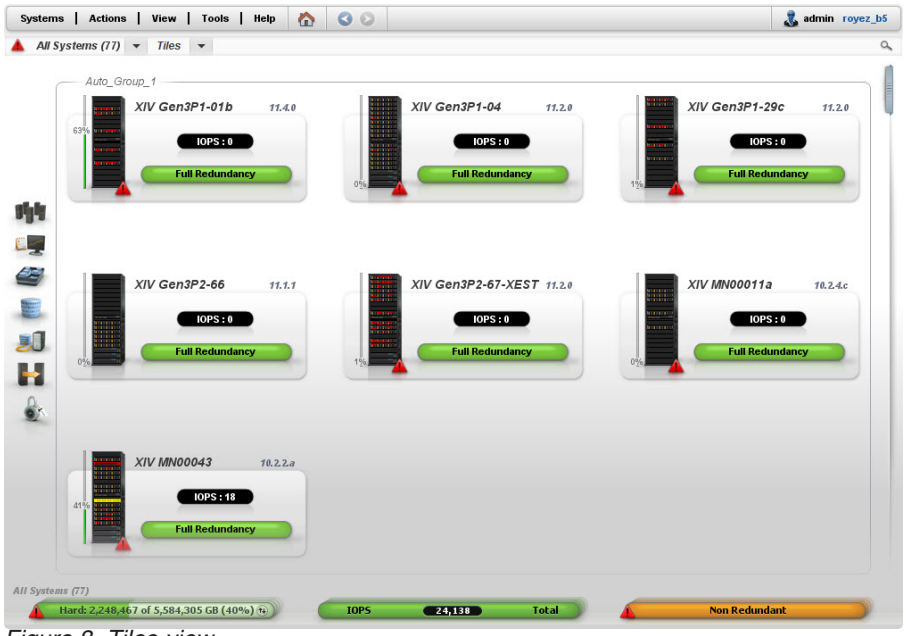

Figure 8. Tiles view

Figure 9. List view

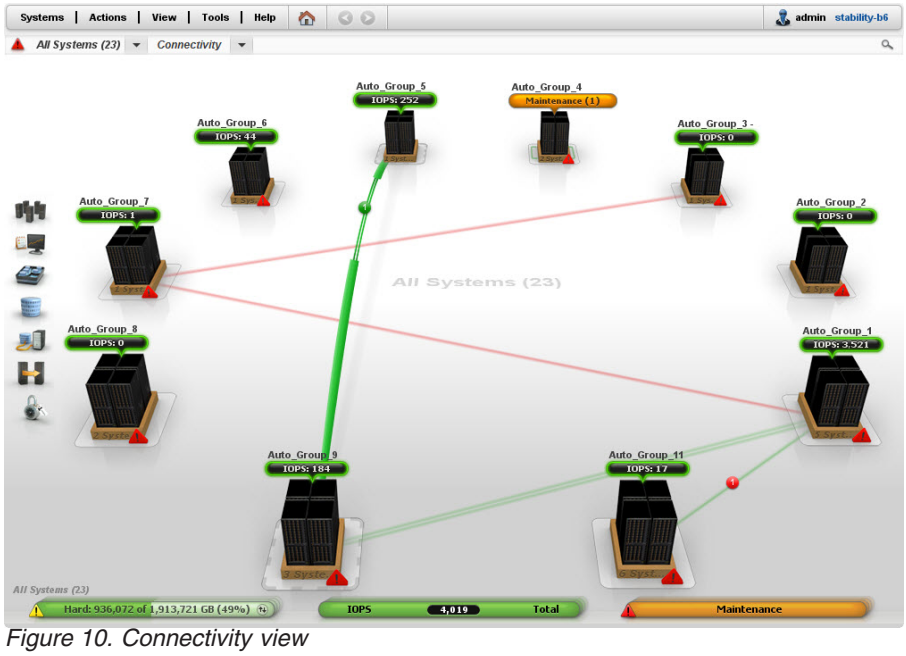

Figure 10. Connectivity view

Consolidated views

Enabled by using the IBM Hyper-Scale Manager, every GUI view displays objects from a multiple number systems, depending on the systems selection, providing the ability to sort and filter from the entire XIV systems in the organization.

Figure 11. Viewing multiple storage pools with multiple systems

Switching between systems in any view

You may switch between systems using *ALT+S*.

Multi-system configuration

The GUI allows to copy system configuration from one system and paste it onto multiple XIV systems.

Figure 12. Copy System Configuration

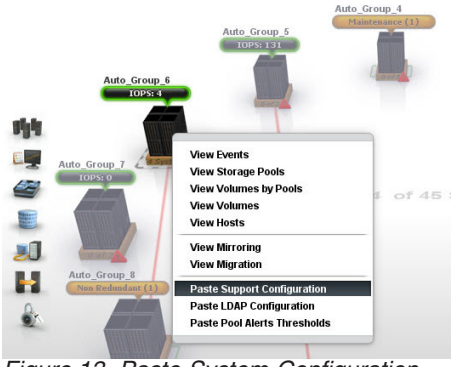

Figure 13. Paste System Configuration

Multi-system users management

Adding a user on multiple systems

The **Add User** screen allows for user management operations on some or all the systems that are managed by the IBM Hyper-Scale Manager.

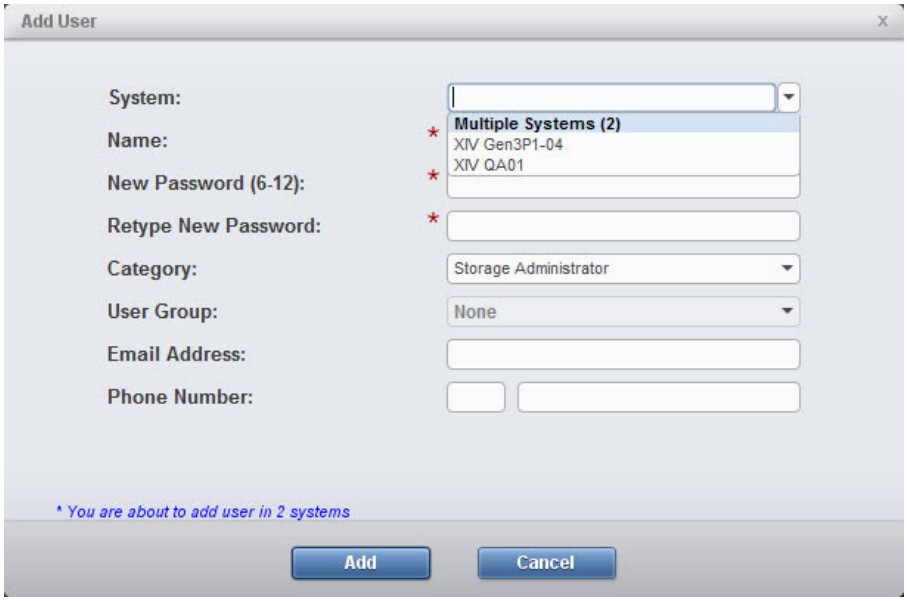

Figure 14. Adding a user to multiple systems

Furthermore, we can select which of the XIV systems we add the user to. Then, the GUI notifies us on the systems the user was added to.

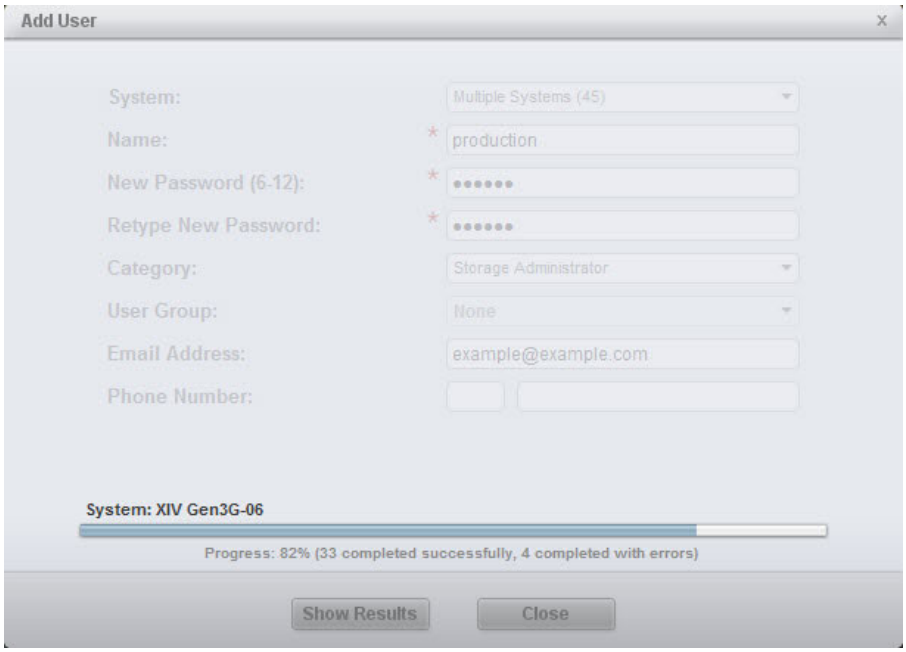

Figure 15. Adding a user to multiple systems

Editing a user on multiple systems at once

Enabled by using the IBM Hyper-Scale Manager, the **Users** screen allows for editing a user across multiple XIV systems at once.

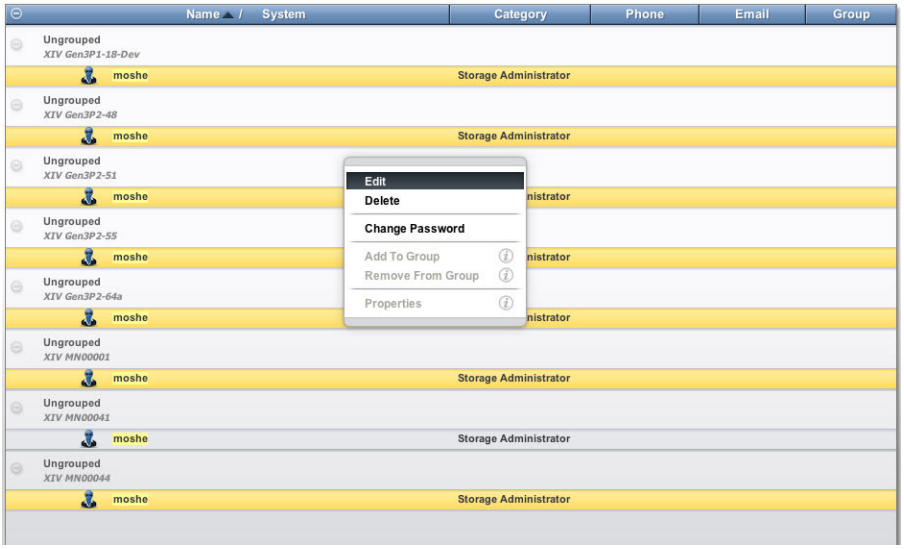

Figure 16. Editing a user on multiple systems

GUI tips

Recognizing self-encrypting disks

The GUI is now recognizing self-encrypting disks installed on the storage system. The machine name is marked with *SED*.

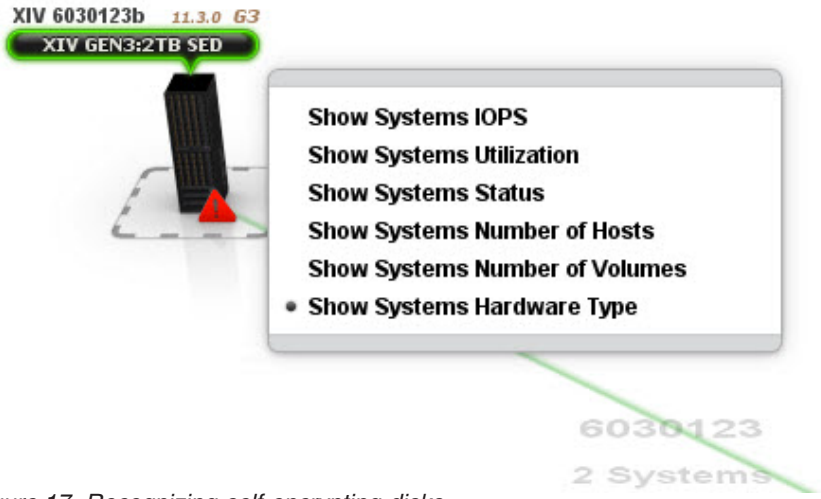

Figure 17. Recognizing self-encrypting disks

Tooltips for dialog fields

On some of the dialog property names there are tooltips to better explain them. In the following example, there is a tooltip explaining what a destination system is when hovering it with the mouse.

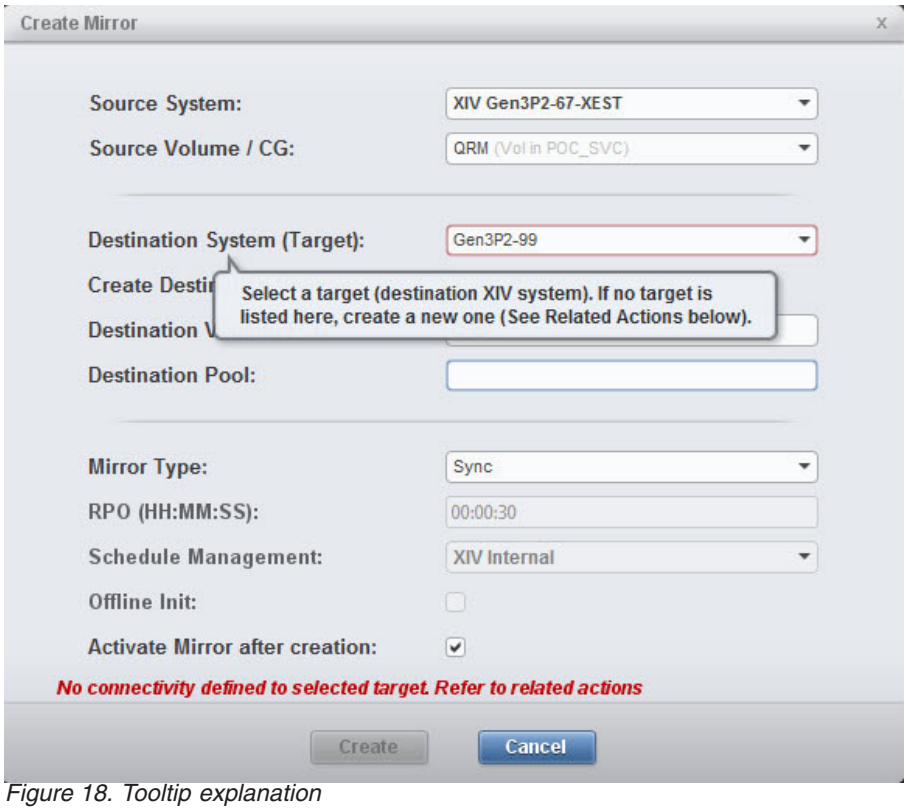

Figure 18. Tooltip explanation

Regional Settings support

For enhanced ease of use, the GUI allow to determine its regional setting.

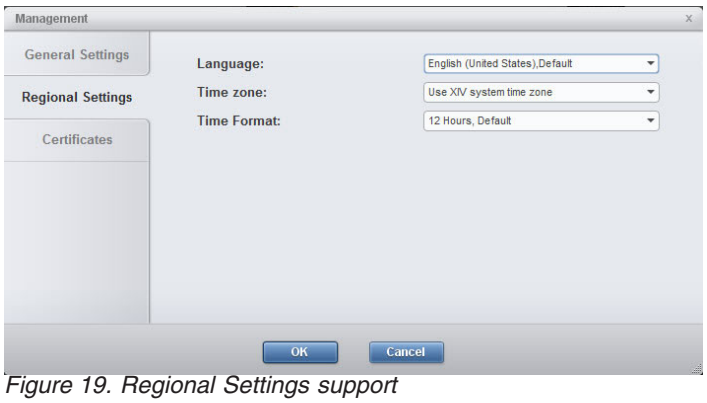

Figure 19. Regional Settings support

Search (Ctrl+F)

The GUI allows for a textual search of just about everything.

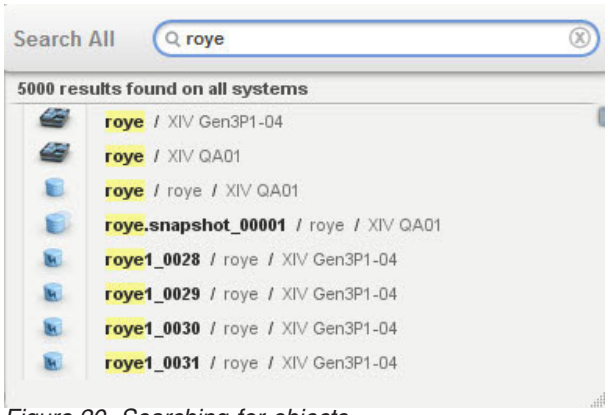

Figure 20. Searching for objects

Disabled items tooltip

For every disabled option on the GUI, a tooltip explains the logic behind it. For example, the *Remove from consistency group* is disabled for a volume that is not part of any consistency group.

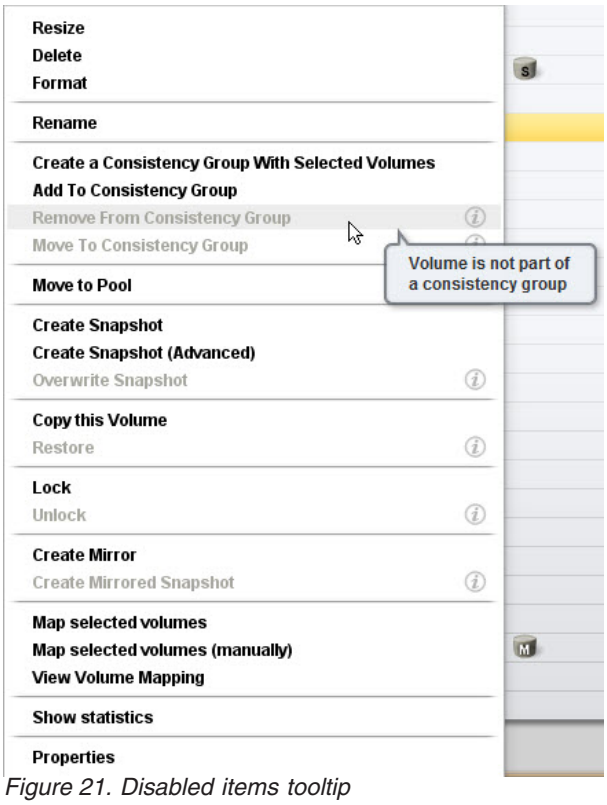

Figure 21. Disabled items tooltip

Actions menu

The Actions menu provides an easy to access way to perform operations on any object on any of the XIV systems that are managed by the GUI, in any context.

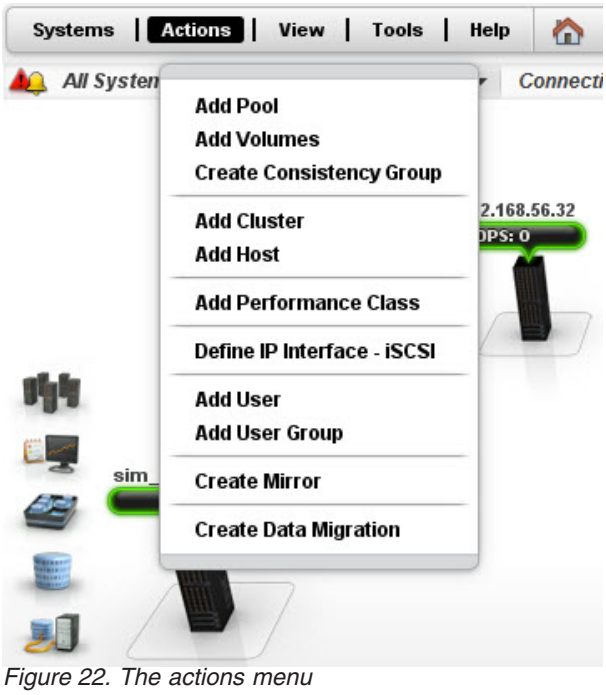

Figure 22. The actions menu

System view

The System View provide a quick access to all of the system's hardware. Clicking any of the system's components will open it on screen. Clicking the arrow to the right of the system will reveal its patch panel.

Figure 23. The system view

System balloons

The system balloons in the Connectivity view provide a quick access to the system's state key indicators.

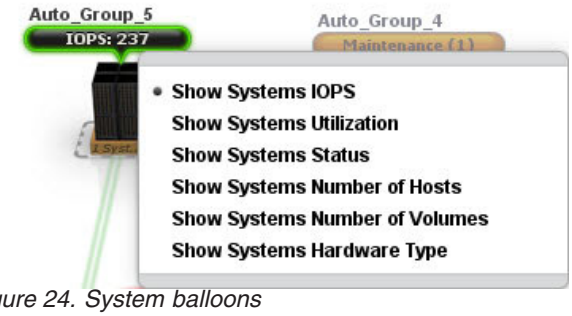

Figure 24. System balloons

Export to CSV

In addition to the previously supported events and statistics frames, the GUI now supports exporting to CSV for all GUI tabular views. The new **Export** icon is available for all these views.

Figure 25. Export to CSV

Statistics

SSD hit in statistics

The Statistics screen displays both RAM and SSD cache hits for the relevant systems.

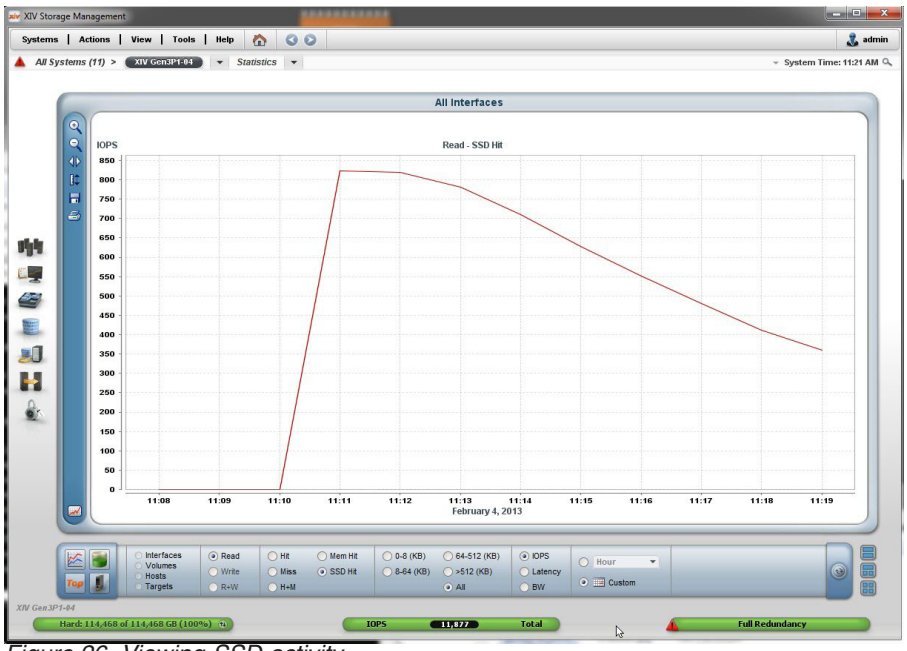

Figure 26. Viewing SSD activity

Capacity consumption trending

Capacity history at a glance.

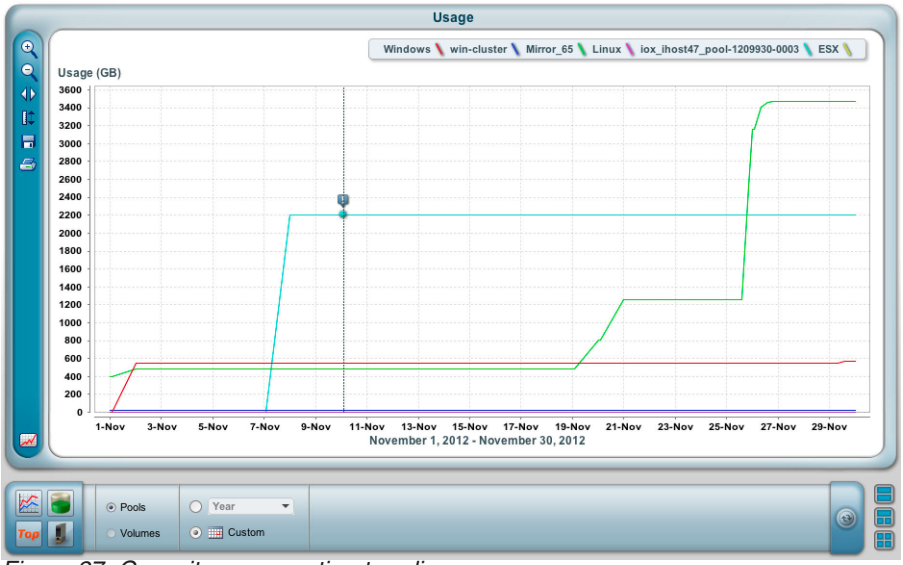

Figure 27. Capacity consumption trending

IBM Hyper-Scale Mobility, Mirroring and Data Migration

IBM Hyper-Scale Mobility

The GUI simplifies the IBM Hyper-Scale Mobility task. The source and target volumes are displayed on screen, as well as the Mobility progress, providing the following views and controllers:

The Create IBM Hyper-Scale Mobility screen

This screen allows to create an IBM Hyper-Scale Mobility by providing the required information: source and destination systems, source volume and

destination pool.

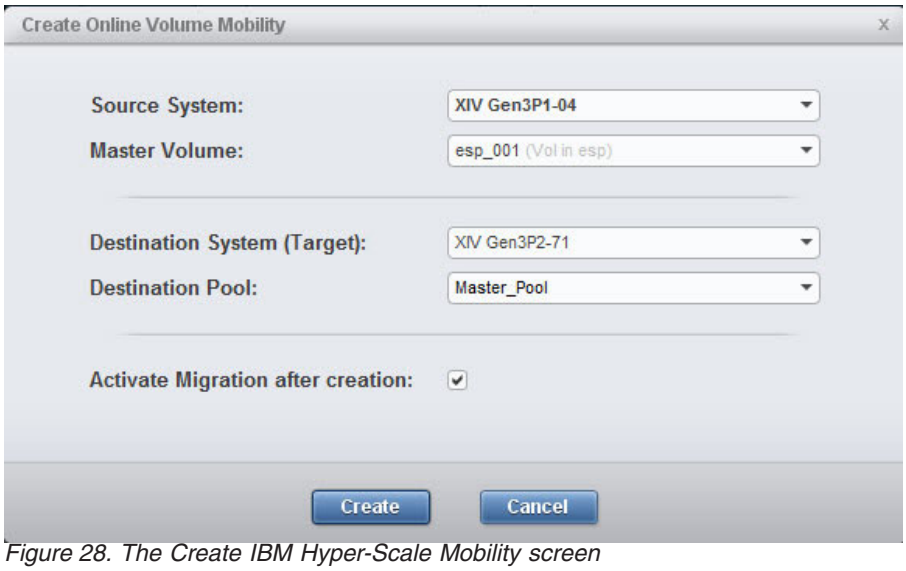

Figure 28. The Create IBM Hyper-Scale Mobility screen

All IBM Hyper-Scale Mobility commands are easily accessible

Following the creation of the IBM Hyper-Scale Mobility relation, all of the relevant commands (activating the Mobility or aborting it, etc.) are available through right-clicking the either of the source or destination volumes under the IBM Hyper-Scale Mobility view that shows all IBM Hyper-Scale Mobility activities and their states.

Figure 29. All IBM Hyper-Scale Mobility commands are easily accessible

Viewing the IBM Hyper-Scale Mobility phase and status at a glance

IBM Hyper-Scale Mobility statuses are color coded:

Figure 30. Viewing the phase and status at a glance

Name The name of the volume in the IBM Hyper-Scale Mobility relation, either source or destination.

Phase of the IBM Hyper-Scale Mobility
Migration, Proxy-Ready or Proxy.

Operational Status
Link is up or Link is disrupted.

State

- On the source: Initializing, Synchronized, Unsynchronized or Proxy.
- On the destination: Consistent, Inconsistent or Proxied.

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The release is supported via:

Voice calls
Will come into Level 1 or Front Line Support as they do for the current product.

Customers will use the appropriate support phone number for their respective countries; refer to the World Wide Directory for the support numbers by country. http://www.ibm.com/planetwide

Documentation format

The publications for this product are in Adobe Portable Document Format (PDF) and should be compliant with accessibility standards.

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Readers' Comments — We'd Like to Hear from You

IBM XIV Storage System
GUI and XCLI 4.3.1
Release Notes

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