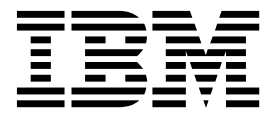


IBM XIV Management Tools
Version 4.8

Release Notes



First Edition (December 2015)

This edition applies to the IBM XIV Management Tools version 4.8 software package. Newer document editions may be issued for the same version in order to add missing information, update information, or amend typographical errors. The edition is reset to 'First Edition' for every newly released version.

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Overview

IBM® XIV® Management Tools is a powerful, top-of-the-line management and monitoring software for IBM XIV and IBM Spectrum Accelerate™ systems.

The software package includes the following components:

- XIV graphical user interface (GUI) - Industry-acclaimed storage management GUI that offers extreme ease of use and has set the standard for the entire IBM Storage product portfolio.
- XIV online monitoring tool (XIV Top)
- XIV Command-Line Interface (XCLI) utility

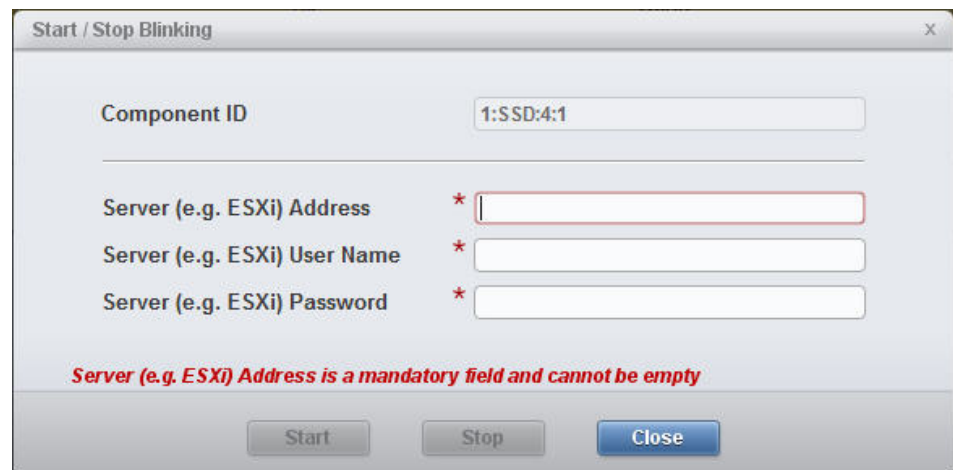
Also included is IBM Hyper-Scale Manager, an advanced server platform for scaling out, managing, and licensing multiple storage systems. IBM Hyper-Scale Manager reduces operational complexity and enhances capacity planning through integrated management for large and multi-site deployment.

For more detailed information about IBM XIV Management Tools, refer to its user documentation and online information.

What's new in version 4.8

IBM XIV Management Tools version 4.8 adds support for the following storage systems.

- IBM Spectrum Accelerate 11.5.3.x – Including:
 - Support for IBM Hyper-Scale Mobility (volume migration) operations over iSCSI
 - Option for associating iSCSI interfaces with different port groups per module
 - Enhanced individual disk location and identification
 - Physical disk blinking control:



- IBM XIV Storage System Gen3 version 11.6.1 – Including:
 - Support for IBM Real-time Compression™ enhancements in version 11.6.1, including Turbo Compression in the new 281x-314 XIV model
 - Newly created storage pools on the new 281x-314 XIV model are defaulted to have compressed volumes

- Software PID field in the system list now supports the 281x-314 XIV model

For information about the fixes in version 4.8, see “Change log” on page 5.

IBM Hyper-Scale Manager version 1.9 adds usable capacity information for the IBM License Metric Tool (ILMT).

Compatibility

This section details the compatibility of IBM XIV Management Tools version 4.8 with storage system versions and IBM Hyper-Scale Manager releases.

Supported storage systems

Version 4.8 supports the following storage system versions:

Storage system	Microcode version
IBM XIV Storage System (model 281x-A14)	10.2.4.x
IBM XIV Storage System Gen3 (models 281x-114, 281x-214, and 281x-314)	11.0.x – 11.6.x
IBM Spectrum Accelerate	11.5.0.x – 11.5.3.x

Supported IBM Hyper-Scale Manager releases

IBM XIV Management Tools version 4.8 is compatible with IBM Hyper-Scale Manager version 1.9 and all previous IBM Hyper-Scale Manager releases.

Requirements

This section details the XIV GUI and IBM Hyper-Scale Manager requirements.

XIV GUI requirements

The XIV GUI runs in either Direct mode or Server mode, and requires different hardware resources depending on the mode in use.

Additionally, the requirements vary depending on whether the XIV GUI that is installed on a 32-bit or a 64-bit operating system.

Direct mode

In Direct mode, the XIV GUI requires the following:

CPU Dual core

RAM

Up to 25 storage systems

32-bit and 64-bit: 700 MB

More than 25 storage systems

32-bit: 1.1 GB

64-bit: 1.5 GB

Max number of systems that can be monitored by a single XIV GUI in Direct mode: 144

Best practice: Use IBM Hyper-Scale Manager and an XIV GUI in Server mode when using more than 10 storage systems.

Server mode

In Server mode, the XIV GUI requires the following:

CPU Dual core

RAM 1 GB

Allowed latency between a single XIV GUI and IBM Hyper-Scale Manager:
Maximum of 50 milliseconds

Supported operating systems

Note: Make sure you install the relevant bit package (64-bit or 32-bit) according to the operating system that is in use.

Operating system	Bit version / CPU architecture	Supported IBM XIV Management Tools component
Microsoft Windows Server 2008	32-bit or 64-bit	<ul style="list-style-type: none"> • XIV GUI • XIV Top • XIV CLI (XCLI) utility
Microsoft Windows Server 2012 R1 or R2	64-bit	<ul style="list-style-type: none"> • XIV GUI • XIV Top • XIV CLI (XCLI) utility
Microsoft Windows Vista	32-bit or 64-bit	<ul style="list-style-type: none"> • XIV GUI • XIV Top • XIV CLI (XCLI) utility
Microsoft Windows 7	32-bit or 64-bit	<ul style="list-style-type: none"> • XIV GUI • XIV Top • XIV CLI (XCLI) utility
Microsoft Windows 8–8.1	32-bit or 64-bit	<ul style="list-style-type: none"> • XIV GUI • XIV Top • XIV CLI (XCLI) utility
Red Hat Enterprise Linux (RHEL) 6.4 – 6.5	32-bit or 64-bit	<ul style="list-style-type: none"> • XIV GUI • XIV Top • XIV CLI (XCLI) utility
Apple OS X 10.9 – 10.10	N/A	<ul style="list-style-type: none"> • XIV GUI • XIV Top • XIV CLI (XCLI) utility
HP Unix (HP-UX) 11i v3	Intel IA-64	XCLI utility
IBM AIX® 6.x – 7.x	N/A	XCLI utility
Solaris 11	SPARC or Intel x86-64	XCLI utility

IBM Hyper-Scale Manager requirements

IBM XIV Management Tools version 4.8 is bundled with IBM Hyper-Scale Manager version 1.9, which can be installed as a server application.

Note:

- Starting from version 1.7, IBM Hyper-Scale Manager as a virtual appliance is no longer supported. Only the application deployment is supported.
 - If you are using the a previous virtual appliance version, refer to the *IBM Hyper-Scale Manager as an Application User Guide (GC27-5984)* for information on how to keep using the virtual appliance or migrate its data to the application version.
-

IBM Hyper-Scale Manager 4.8 requires the following software, hardware, and configurations:

Operating system

- Red Had Enterprise Linux (RHEL) 6.x, 64-bit.

Disk space

- At least 1 GB of free space in the /tmp directory
- 76 GB free space under the installation path (the path is configurable and does not include the home directory)

Physical CPU cores and memory

Number of storage systems in use	Number of storage objects in use	Required CPU cores	Required RAM
Up to 40	Up to 80,000	Dual-core	4 GB
Up to 80	Up to 120,000	4 cores	6 GB
Up to 120	Up to 180,000	6 cores	6 GB
Up to 144	Up to 220,000	6 cores	8 GB

Note: For best performance, install the IBM Hyper-Scale on a dedicated independent server.

Ports

- Outbound/Inbound: RMI - 1199–1204
- Inbound only: SSH/SCP - 22
- Outbound only: SMTP - 25
- Communication with storage systems - 7778
- RESTful API port - 8443

Latency

Allowed latency between the IBM Hyper-Scale Manager and the storage systems it monitors: up to 200 milliseconds.

Concurrently connected GUI clients to an XIV system

Maximum number of GUI clients (connected to a storage system) that can concurrently send requests to IBM Hyper-Scale Manager: 15

Administered storage systems

Maximum storage systems that are administered by one server: 144 (up to 12 groups with 12 storage systems in each)

Hyper-Scale Manager with XIV GUI

Use of IBM Hyper-Scale Manager is recommended when using 10 or more storage systems.

IBM Spectrum Accelerate

IBM Hyper-Scale Manager is required for IBM Spectrum Accelerate license management.

Change log

This change log summarizes the changes that were made in recent 4.x code level versions of IBM XIV Management Tools.

Note: New functional features of these versions are only briefly summarized. For a detailed summary of the new functional features of a specific version, refer to the 'What's new' section of its individual release notes.

Version 4.8 (December 2015)

Version 4.8 of IBM XIV Management Tools adds support for IBM Spectrum Accelerate version 11.5.3 and IBM XIV Storage System Gen3 version 11.6.1.

Fixes in version 4.8:

Ticket ID	Description
UI-265713	Fixed: Removed users are still able to create consistency groups.

Version 4.7 (September 2015)

Version 4.7 of IBM XIV Management Tools added support for IBM Spectrum Accelerate version 11.5.1.

Fixes in version 4.7:

Ticket ID	Description
UI-265425	Fixed: When configuring the IBM Hyper-Scale Manager server to a network interface, it is automatically set to ETH0 even if ETH0 is unavailable.

Version 4.6.0.1 (June 2015)

Version 4.6.0.1 of IBM XIV Management Tools was a minor release that included a hotfix to resolve the CVE-2015-4000 issue, also known as the "Logjam" vulnerability. Version 4.6.0.1 replaced version 4.6.0.

Fixes in version 4.6.0.1:

Ticket ID	Description
UI-265639	Fixed: The storage system disables the TLS protocol and requires a certificate with a minimal key size of 2048 bits.

Improvements in version 4.6.0.1:

Ticket ID	Description
UI-265548	IBM Hyper-Scale Manager now includes a security certificate with a key size of 2048 bits. With the latest versions of Chrome and Firefox search engines, a certificate with a minimal key size of 2048 bits is required for successfully connecting to the server and using RESTful API commands.

Fixes and features of earlier versions

IBM XIV Management Tools version 4.8 includes all the features and fixes that were included in previous 4.x versions.

To obtain information regarding previously introduced features or issues that were resolved in previous versions, see the release notes page on IBM Knowledge Center (ibm.com/support/knowledgecenter/STJTAG).

Limitations

The following functional limitations apply to IBM XIV Management Tools and may remain in effect in future software versions.

Ticket ID	Description
UI-263912	After upgrading IBM Hyper-Scale Manager, the time set in Schedule Daily Backup is not saved and reverts to the default value. The default value is 11:30 PM.
UI-263821	The XIV GUI does not launch when Single Sign-On (SSO) software is running on the client.
UI-262890	Domains with size 0 cannot be created or edited.
UI-261561	An untrusted system (a system that is not authenticated via a certificate) is displayed as trusted. Removing the system certificate with the xcli -c remove command and then trying to connect to this system succeeds. This occurs when the XCLI server is up. Workaround: Log out of the XCLI server and then log in again.
UI-253185	The GUI must be installed in a dedicated directory, as the uninstallation erases it completely.
UI-247041	Changing the PC local time when the GUI is open might also change the storage system time. Workaround: Restart the GUI.

Known issues

This section details the known issues in IBM XIV Management Tools, along with possible solutions or workarounds (if available).

Important:

- **The issues listed below apply to version 4.8 or earlier versions.** As long as a newer version has not yet been released, a newer release notes edition for version 4.8 might be issued to provide a more updated list of known issues and workarounds.
 - When a newer version is released for general availability, the release notes of version 4.8 will no longer be updated. Accordingly, check the release notes of the newer version to learn whether any newly discovered issues affect version 4.8, or whether the newer version resolves any of the issues listed below.
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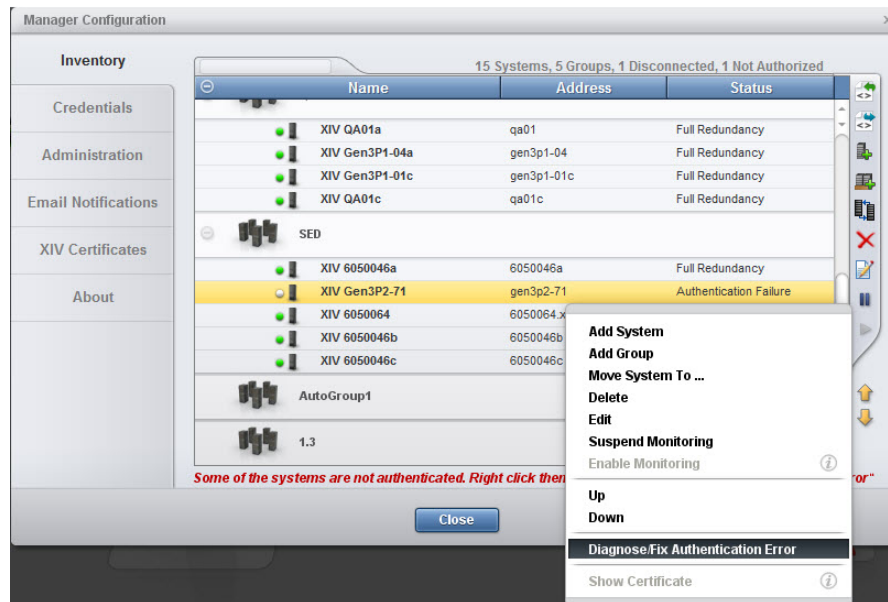
Ticket ID	Description
UI-265379	<p>An asynchronous mirror relation with an RPO that is different from the default (30 seconds) cannot be extended to a three-way mirroring with the standby mirror option selected. In addition, an existing synchronous mirror relation cannot be extended to three-way mirroring if the asynchronous mirror created during the process has an RPO that is different from the default.</p> <p>Workaround: Manually create the mirror schedule on the secondary source and destination systems (if a standby mirror is created). Run the scheduler_create CLI command prior to creating the three-way mirroring. Alternatively, you can set the RPO with the default value and modify it after the three-way mirroring is successfully created.</p>
UI-265088	<p>On the target of a compressed volume, that is either mirrored or part of a Hyper-Scale Mobility (volume migration) relationship, the ratio and savings parameters are wrongly displayed as zero (0).</p> <p>Workaround: No workaround is currently available.</p>
UI-264605	<p>When there is a role conflict in a mirroring relation, two rows are displayed in the GUI. The rows display the storage systems with their source and destination volumes in different (and opposite) roles. That is, the system's role in the mirroring relation is reversed in each row.</p> <p>Workaround: Select only the row on which you would like to fix the role conflict and run the Change Role option on the mirror's source and destination. Refrain from selecting both rows at once, as this will only lead to further problems.</p>
UI-264145	<p>The XIV GUI truncates (rounding down) the Latency values in the Statistics view.</p> <p>Workaround: No workaround is currently available.</p>
UI-264141	<p>When there are two identical rows for the same mirror, the cursor might jump to the first mirror when you try to select the bottom mirror.</p> <p>Workaround: No workaround is currently available.</p>
UI-263084	<p>When an XIV Top session is open and the session idle timeout is changed, it will only take effect the next time the XIVTop is opened.</p> <p>Workaround: Close and reopen a new XIV Top session.</p>

Ticket ID	Description
UI-261999	<p>The option to determine where an imported certificate is stored does not work.</p> <p>The certificate is stored in C:\Users\{UserName}\AppData\Roaming\XIV\GUI12\properties, regardless of the address that is stated by the -h parameter.</p> <p>Workaround: Import the certificate using IBM Hyper-Scale Manager.</p>
UI-243418	<p>The XIV GUI does not launch if certain env variables are defined.</p> <p>The specific env variables are:</p> <ul style="list-style-type: none"> • IBM_JAVA_OPTIONS • JAVA_TOOL_OPTIONS <p>Workaround: Delete the definition.</p>
MSM-261090	<p>IBM Hyper-Scale Manager cannot monitor pre-11.2.0 XIV systems that are configured with LDAP with an <i>xiv_msms</i> user that is configured both internally and in the LDAP.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 1. Disable LDAP on the specific XIV system. <div data-bbox="461 852 1425 905" style="border: 1px solid black; border-radius: 10px; padding: 5px; margin: 5px 0;"> <code>ldap_mode_set mode=inactive</code> </div> 2. Delete the <i>xiv_msms</i> user which is defined internally. <div data-bbox="461 972 1425 1024" style="border: 1px solid black; border-radius: 10px; padding: 5px; margin: 5px 0;"> <code>user_delete user=xiv_msms</code> </div> 3. Re-enable LDAP. <div data-bbox="461 1092 1425 1144" style="border: 1px solid black; border-radius: 10px; padding: 5px; margin: 5px 0;"> <code>ldap_mode_set mode=active</code> </div>

Ticket ID	Description
MSM-261538	Disabling LDAP on an XIV system may cause an authentication failure on all of the systems that are configured to this LDAP.

Workaround:

1. Select **Systems > Manager Configuration** from the XIV GUI menu.
2. Type the **Manager Access Code**.
3. Select the **Inventory** tab.
4. Select and right-click the systems whose status is **Authentication Failure** and click **Diagnose/Fix Authentication Error** on the menu.



Related information and publications

You can find additional information and publications related to IBM XIV Management Tools on the following information sources.

- IBM XIV Storage System marketing website (ibm.com/systems/storage/disk/xiv)
- IBM XIV Storage System on IBM Knowledge Center (ibm.com/support/knowledgecenter/STJTAG)
- IBM Spectrum Accelerate marketing website (ibm.com/systems/storage/spectrum/accelerate)
- IBM Spectrum Accelerate on IBM Knowledge Center (ibm.com/support/knowledgecenter/STZSWD)
- IBM Storage Redbooks® website (redbooks.ibm.com/portals/storage)

IBM XIV Management Tools documentation set

IBM XIV Management Tool has an associated documentation set that provides additional information about installing and operating IBM XIV Management Tool.

IBM XIV Management Tool

- *IBM XIV Storage System Management Tools Operations Guide (SC27-5986)*

- *IBM XIV Storage System Management Tools Release Notes*

IBM Hyper-Scale Manager installation

- *IBM Hyper-Scale Manager as an Application User Guide (GC27-5984)*
- *IBM Hyper-Scale Manager Quick Start Guide for Installation as an Application*

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- IBM website (ibm.com[®])
- IBM Support Portal website (ibm.com/storage/support)
- IBM Directory of Worldwide Contacts website (ibm.com/planetwide)
- IBM service requests and PMRs (ibm.com/support/servicerequest/Home.action)

Use the Directory of Worldwide Contacts to find the appropriate phone number for initiating voice call support. Voice calls arrive to Level 1 or Front Line Support.

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