

IBM XIV Management Tools
Version 4.7

Release Notes



First Edition (September 2015)

This edition applies to IBM XIV Management Tools version 4.7 release, and to all subsequent releases and modifications until otherwise indicated in new editions. Newer document editions may be issued for the same product version in order to add missing information, update information, or amend typographical errors. The edition is reset to 'First Edition' for every new product version.

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Overview

IBM® XIV® Storage System Management Tools include the XIV Storage Management GUI, IBM XIV online monitoring tool (XIV Top), and IBM XIV Storage System Command-Line Interface (XCLI). Along with IBM XIV Management Tools comes the IBM Hyper-Scale Manager. The Hyper-Scale Manager reduces operational complexity and enhances capacity planning through integrated management for large and multi-site XIV deployment.

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

What's new in version 4.7

Version 4.7 is a major release that adds enhancements and fixes to IBM XIV Management Tools and IBM Hyper-Scale Manager.

IBM XIV Management Tools version 4.7 introduces:

- Support for IBM Spectrum Accelerate™ version 11.5.1
- IBM Spectrum Accelerate licensing on XIV Gen3 systems
- Diagnostics mode for IBM Spectrum Accelerate deployment

IBM Hyper-Scale Manager version 1.8 introduces:

- Support for *IBM License Metric Tool* (ILMT)

For more information about the fixes in this release, see “Fixed issues” on page 4.

Requirements

XIV GUI requirements

The XIV GUI runs in either *Direct* mode, or *Manager* mode. Additionally, the XIV GUI installed on a 64-bit OS has different specifications than a 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:
144

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

Server mode

CPU Dual core

Memory
1GB

Allowed latency between a single XIV GUI and the IBM Hyper-Scale Manager:
Max of 50ms

Supported OS for XIVGUI, XCLI, XIVTOP

Windows

- Windows Server 2003 (32 bit)
- Windows Server 2003 (64 bit)
- Windows Server 2008 (32 bit)
- Windows Server 2008 (64 bit)
- Windows Server 2012 R1 (64 bit)
- Windows Server 2012 R2 (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)
- Windows 8.1 (32 bit)
- Windows 8.1 (64 bit)

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

Linux

- Linux Red Hat 6.4 (32 bit)
- Linux Red Hat 6.4 (64 bit)
- Linux Red Hat 6.5 (32 bit)
- Linux Red Hat 6.5 (64 bit)

Mac OSx 10.9
OSx 10.10

Additional supported OS for XCLI only

AIX AIX 6
AIX 7

Oracle Solaris 11 (SPARC)
Solaris 11 (INTEL)

HPUX HPUX 11i v3 (IA64)

IBM Hyper-Scale Manager requirements

Important: Starting from version 1.7, *IBM Hyper-Scale Manager as a Virtual Appliance* is no longer supported.

Before upgrading to version 4.7 hotfix, refer to the following use cases to determine which version of IBM Hyper-Scale Manager is most suitable for your system:

- If you are currently working with *IBM Hyper-Scale Manager as an Application* on an RHEL operating system, manually download and install the most updated version of *IBM Hyper-Scale Manager as an Application* 1.8 and the XIV GUI version 4.7. See the *IBM Hyper-Scale Manager as an Application User Guide (GC27-5984)* or the IBM Knowledge Center (Installing the IBM Hyper-Scale Manager).
- If you are currently working with *IBM Hyper-Scale Manager as a Virtual Appliance* and would like to continue working with it, manually download and install the *IBM Hyper-Scale Manager as a Virtual Appliance* version 1.6.2 hotfix, and the XIV GUI version 4.5.0.2. Refer to the *IBM XIV Storage System Management Tools version 4.5.0.2 Release Notes* for more information.
- If you are currently working with *IBM Hyper-Scale Manager as a Virtual Appliance* and would like Real-time Compression support, as well as the most up-to-date features of version 4.7, manually download and install the most updated version of *IBM Hyper-Scale Manager as an Application* 1.8 and the XIV GUI version 4.7. Follow the instructions for migrating data to *IBM Hyper-Scale Manager as an Application*.

For detailed information, refer to the *IBM Hyper-Scale Manager as an Application User Guide (GC27-5984)*, or to the IBM Knowledge Center (Installing the IBM Hyper-Scale Manager and Migrating data to IBM Hyper-Scale Manager as an application).

Installing IBM Hyper-Scale Manager requires the following specifications:

- The installation should be done on a 64-bit RHEL 6 (and up) OS.

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

- 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 have the home directory)
- CPU and Memory allocation:

Table 1. Standalone application CPU and Memory allocation per machines/objects

Specifications	Dual-core/4Gb	4 cores/6Gb	6 cores/6Gb	6 cores/8Gb
# of machines	up to 40	up to 80	up to 120	up to 144
# of objects	up to 80K	up to 120K	up to 180K	up to 220K

Other specifications

Ports

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

Latency

Allowed latency between the IBM Hyper-Scale Manager and the XIV systems it monitors: maximum of 200 ms.

Concurrently connected GUI clients to an XIV system

Maximum number of GUI clients connected to an XIV system that can concurrently send requests to the IBM Hyper-Scale Manager is 15.

Administered XIV systems

Maximum XIV Systems that are administered by one server is 144 (up to 12 groups with 12 systems each).

Hyper-Scale Manager with XIV GUI

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

IBM Spectrum Accelerate

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

Compatibility

This section details the compatibility of IBM XIV Management Tools version 4.7 with storage system versions and IBM Hyper-Scale Manager releases.

Supported storage systems

Version 4.7 supports the following storage system versions:

Storage system	Supported version
IBM XIV Storage System	10.2.4.x
IBM XIV Storage System Gen3	11.0 to 11.6.x
IBM Spectrum Accelerate	11.5.0.x, 11.5.1.x

Supported IBM Hyper-Scale Manager releases

IBM XIV GUI 4.7 is compatible with IBM Hyper-Scale Manager 1.8 and all previous IBM Hyper-Scale Manager releases.

Fixed issues

Version 4.7 of IBM® XIV® Management Tools is a major release that includes the following improvements:

Ticket ID	Description
UI-265425	Fixed: When configuring the Hyper-Scale Manager server to a network interface, it automatically defaults to eth0, even if eth0 is unavailable.

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 the Hyper-Scale Manager, the time of the Schedule Daily Backup is not saved and reverts to the default value. The default value is 11:30 p.m.
UI-263821	The XIV GUI does not launch when Single Sign-On (SSO) software is running on the client.
UI-262890	Unable to create or edit domain with size 0 through 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 <code>xcli -c remove</code> 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.
UI-253185	The GUI must be installed on a dedicated directory, as the uninstallation erases it completely.
UI-247041	Changing the PC local time when the GUI is open may also change the 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 4.7 or earlier versions.** As long as a newer version has not yet been released, a newer release notes edition for version 4.7 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 4.7 will no longer be updated. Accordingly, check the release notes of the newer version to learn whether any newly discovered issues affect version 4.7, or whether the newer version resolves any of the issues listed below.
-

Ticket ID	Description
UI-265379	<p>An asynchronous mirror relation with an RPO that is different from the default (30 seconds) can not be extended to a 3-way mirror with the standby mirror option selected. In addition, an existing synchronous mirror relation can not be extended to a 3-way mirror 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 XCLI command scheduler_create prior to creating the 3-way mirror. Alternatively, you can set the RPO with the default value and modify it after the 3-way mirror 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 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 XIV 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 XIVTop 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 XIVTop session.</p>
UI-261999	<p>The option to determine where an imported certificate is stored does not work.</p> <p>The certificate is stored on: "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>

Ticket ID	Description
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MSM-261090 IBM Hyper-Scale Manager cannot monitor a pre-11.2.0 XIV system that is configured with LDAP with an *xiv_msms* user that is configured both internally and in the LDAP.

Workaround:

1. Disable LDAP on the specific XIV system.

```
ldap_mode_set mode=inactive
```

2. Delete the *xiv_msms* user which is defined internally.

```
user_delete user=xiv_msms
```

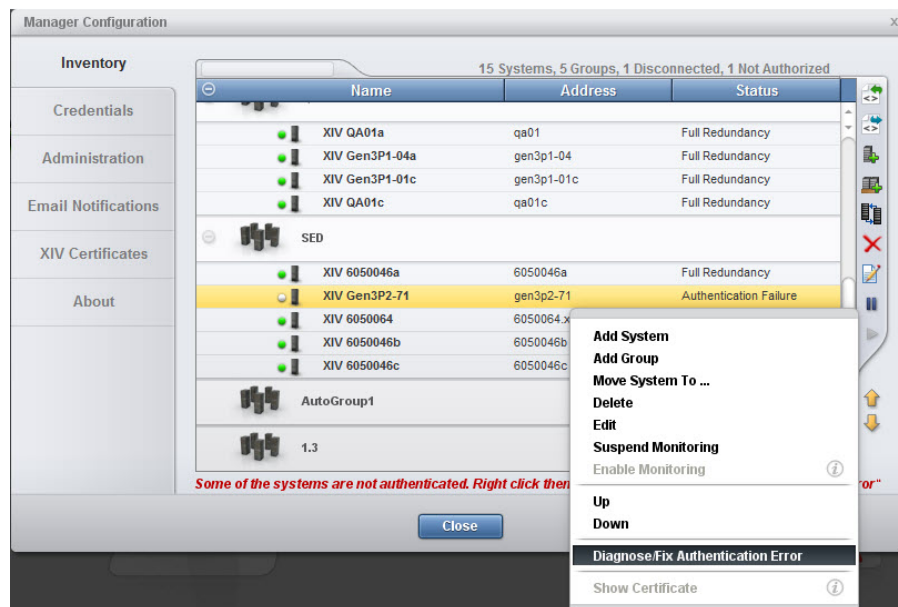
3. Re-enable LDAP.

```
ldap_mode_set mode=active
```

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 Storage System Gen3 and 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 Storage Redbooks® website (redbooks.ibm.com/portals/storage)

IBM XIV Management Tools documentation set

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

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*

Management Tools

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

Release notes publication format

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