IBM XIV Storage System Management Tools
Version 4.4.1

Release Notes

IBM

Contents

Figures

Overview

These release notes are for the IBM® XIV® Storage System Management Tools version 4.4.1.

Release date
> 26 December 2014

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

Compatibility

XIV GUI 4.4.1 is compatible with IBM Hyper-Scale Manager 1.5.1.

Supported microcode releases

This version supports IBM XIV release 11.5.0.a and all previous IBM XIV releases.

Management Tools documentation set

The documentation for this release contains instructions for each installation type and an operations guide that is common to both.

IBM Hyper-Scale Manager installation

> **Virtual Appliance installation**
> > • Installation Guide for Virtual Appliance
> > • Quick Start Guide for Virtual Appliance

> **Application installation**
> > • Installation Guide Application
> > • Quick Start Guide for Application

Management Tools
> These documents are common to both installation types.
> • Operations Guide
> • Management Tools Release Notes

Specifications

XIV GUI specifications

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:** 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 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)
- 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 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)

IBM Hyper-Scale Manager specifications

The two IBM Hyper-Scale Manager installation types require two sets of specifications. Following these sets there is a third set, for specifications that are common to both installation types.

Note: The installation instructions are available in the Installation Guides and Quick-Start Guides.

Standalone application

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

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

2. 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)

3. 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

Virtual Appliance memory and CPU

The Virtual Appliance deployment runs as a virtual application above an ESX server (VMWare Hypervisor only).

- An ESX (VMware) Server that hosts the IBM Hyper-Scale Manager, versions: 4, i4, 4.1, i4.1, i5
- VM disk size - 76 GB

This deployment comes with 4 GB memory and dual core vCPU, by default. Immediately after the deployment, revise the specifications according to the number of XIV systems you will manage by the IBM Hyper-Scale Manager:

Table 2. Virtual Appliance 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 - 1199-1209
- 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).

What's new in Management Tools version 4.4.1

XIV Management Tools version 4.4.1 introduces the following new features:

XIV readiness for VMware Virtual Volumes (VVols)
> XIV, now ready for VMware Virtual Volumes (VVols), is designed to enable upcoming VMware vSphere environments to easily automate XIV provisioning, offload snapshots and cloning, and instantly reclaim space -- all at the virtual-machine level and while benefiting from XIV hotspot-free performance predictability and extreme capacity utilization. These capabilities will be delivered through the upcoming VASA 2.0-compliant version of the IBM Storage Integration Server, version 2.0.
>
> See the *IBM XIV Storage System Product Overview* for more information.

Support Access Level settings for Remote Support
> Support now lets you set the **Support Access Level** allowed by the customer. Any activity level above the selected level is subject to customer permission:
>
> - **None** - No access is allowed without customer permission. Connecting to the system requires previous approval from the customer. If approval is received, all actions can be performed. Once approved, connecting to the system, guided repairs, reports and the rest are not blocked.
> - **Diagnostic** - Access is granted for diagnostic purposes only (for example, X-Ray). Allows X-Ray collection and view/list/status actions. Other actions require permission.
> - **No impact** - Access is granted for diagnostic and non-impacting changes. Any change that could possibly result in impaired/reduced/ impacted host IO requires customer permission.
> - **Full** - No prior permission is required to perform any repair action. Access is granted for all activities.
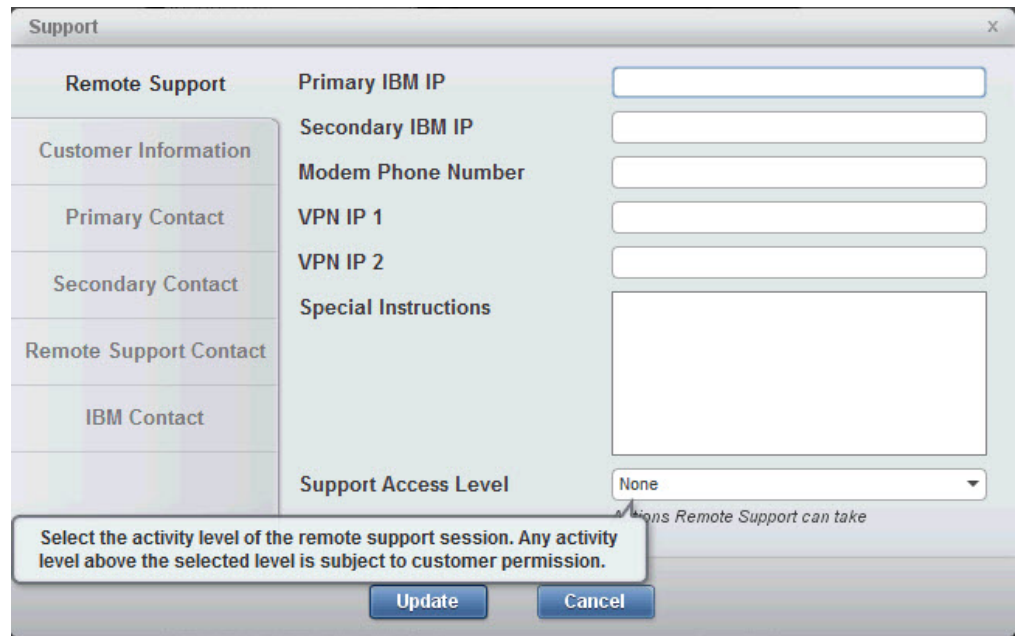
Figure 1. Support Access Level setting

Limitations

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 `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.

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.

XIV GUI Upgrade Notice

UI-262093

When upgrading the XIV GUI from release 4.2 to 4.3 (or higher) on MS-Windows 8, export the systems list prior to the upgrade and import the list immediately after the upgrade.

Fixed issues

UI-264572

This release of the XIV GUI addresses the CVE-2014-3566 issue, also known as the "POODLE SSL vulnerability". SSL V3 is disabled in this version to avoid the POODLE vulnerability.

UI-264486

When you drag the cursor to connect a source iSCSI port to a target port, no line is displayed. The line appears only after the connection is established.

UI-264479

When mapping multiple snapshots, the selection doesn't contain all the snapshots.

UI-264440

After upgrading the XIV GUI to the latest version, only mapped LUNs are displayed in the right pane of the Manual LUN Mapping view.

UI-264320

The XIV GUI 4.4 generates a `USER_LOGIN_HAS_SUCCEEDED` event every minute.

UI-264297

The XIV connectivity link displays the wrong link status when the target name does not equal the system name.

UI-264273

An X-ray file cannot be uploaded.

UI-264209

Usage statistics display the wrong values when the *hours* resolution view is selected

UI-261998

Multiple Event codes cannot be contained in one rule.

Known issues

General

MSM-261090

The IBM Hyper-Scale Manager can't 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
   ```
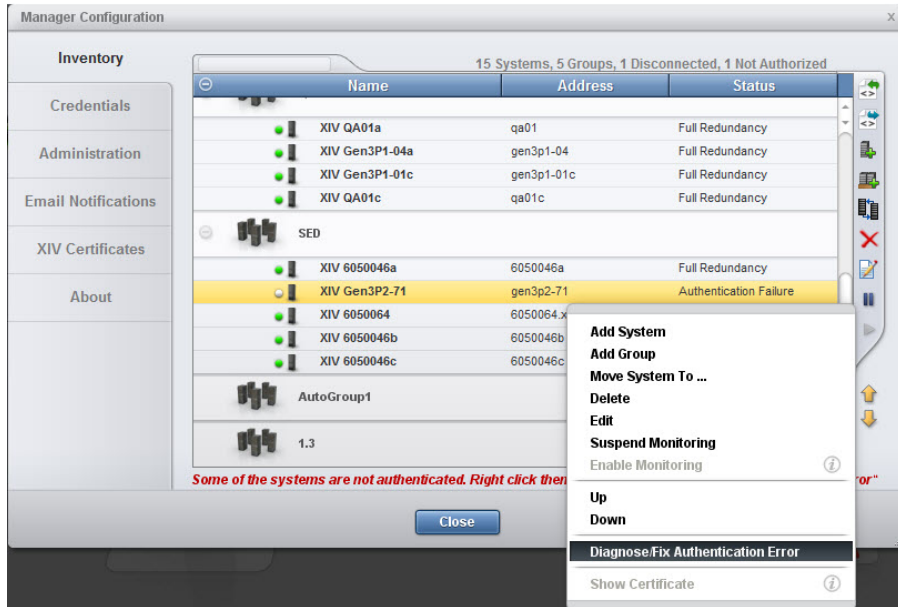
Severity

Moderate

Affected versions:

Version 1.1 and up

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.

Severity
>Moderate

Affected versions:
>Version 1.5

Virtual Appliance installation

MSM-256723

After upgrading the IBM Hyper-Scale Manager, a logged-in vSphere client (using 'root' user) does not see the updated menu and version.

Workaround
>Select option 17) Exit on the root menu to logoff. When you log in again, the IBM Hyper-Scale Manager main menu and version are updated correctly.

Severity
>Moderate

Affected versions:
>Version 1.1 onward

XIV GUI

UI-264605

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 roles. That is, the system's role in the mirroring relation is reversed in each row.

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.

UI-264145

The XIV GUI truncates (rounding down) the Latency values in the Statistics view.

Workaround:
No workaround is available.

UI-264141

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.

UI-263084

When an XIVTop session is open and the session idle timeout is changed, it will only take affect the next time the XIVTop is opened.

Workaround:
Close and reopen a new XIVTop session.

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.

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.

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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

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Index

G
GUI   1

P
prerequisites   1

R
Remote Support
   Support Access Level   4

S
specifications   1

W
What's new for version 4.4.1
   VMware Virtual Volumes (VVols)
     readiness   4

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Version 4.4.1
Release Notes

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