

IBM Hyper-Scale Manager
Version 5.4.0.c

Release Notes



First Edition (July 2018)

This edition applies to the release of IBM Hyper-Scale Manager version 5.4.0.c. 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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Contents

Overview	1
What's new in version 5.4.0.c	1
Compatibility and Requirements	1
Server requirements	1
Supported storage systems	2
Change log	3
Version 5.4.0.c (July 2018)	3
Version 5.4.0.b (June 2018)	3
Version 5.4.0.a (March 2018)	4
Version 5.4.0 (March 2018)	4
Fixes and features of earlier versions	4
Limitations	4
Known issues	5
Related information and publications	7
Notices	9
Trademarks	10

Overview

IBM® Hyper-Scale Manager provides a single and centralized management platform for multiple and different members of the IBM Spectrum Accelerate™ Family, including **IBM FlashSystem® A9000** and **A9000R**, **IBM XIV® Gen3** and **IBM Spectrum Accelerate** software defined storage (SDS) solutions.

Storage administrators use IBM Hyper-Scale Manager from its advanced web-based user interface (UI), to manage and monitor multiple storage systems. IBM Hyper-Scale Manager reduces operational complexity and simplifies capacity planning by consolidating and integrating information from multiple systems into helpful report views.

IBM Hyper-Scale Manager operations can be automated by using its Representational State Transfer (REST) application programming interfaces (APIs).

The IBM Hyper-Scale Manager software package can be downloaded at any time from the IBM Fix Central website (www.ibm.com/support/fixcentral). For more information about IBM Hyper-Scale Manager, see Related information and publications.

What's new in version 5.4.0.c

Version 5.4.0.c of IBM Hyper-Scale Manager is a hotfix release that resolves some miscellaneous issues. For information about the resolved issues, see Version 5.4.0.c (July 2018).

Compatibility and Requirements

IBM Hyper-Scale Manager is compatible with different versions of the Linux operating system and the storage systems as shown.

Server requirements

The following server specifications are required for IBM Hyper-Scale Manager version 5.4.0.c.

Operating system

- Red Hat Enterprise Linux (RHEL) 6.x or 7.x, 64-bit.
- CentOS 6.x or 7.x

CPU architecture

- x86-64

CPU cores and RAM

- At least 2 physical cores
- At least 4 GB of RAM

Table 1 on page 2 shows the recommended sizing for aggregated managed usable capacity (of all the managed systems):

Table 1. CPU and memory allocation per total usable capacity before reduction (deduplication/compression)

Total usable capacity before reduction (deduplication/compression)	CPU and RAM specifications
Up to 3 Petabytes (PB)	Dual-core/4 GB
3 PB to 6 PB	Quad-core/6 GB
6 PB to 15 PB	6 cores/8 GB
15 PB to 30 PB	8 cores/8 GB

Disk space

- At least 4 GB of disk space where the installation file is located
- 76 GB free space in the installation folder. The default installation path is /home/msms/hyperscale, but this path can be modified.

To determine the amount of disk space available, enter the following Linux command:

```
$ df -h %DIRECTORY%
```

Communication ports

- TCP 25 (SMTP)
- TCP 7778 (Backend communication with storage systems)
- TCP 8443 (HTTPS supported browser access)
- TCP 8080 (HTTP supported browser access)
- TCP 8440 (HTTPS supported browser access for Cloud Integration)

Concurrently connected GUI clients

Maximum number of GUI clients (connected to a storage system) that can concurrently send requests to IBM Hyper-Scale Manager: 10

Web browser

- Google Chrome version 49 or later
- Mozilla Firefox 45 or later

Screen resolution

The supported screen resolutions for viewing the IBM Hyper-Scale Manager UI are 1280 x 800 (lowest) to 1920 x 1200 (highest).

Supported storage systems

IBM Hyper-Scale Manager version 5.4.0.c supports the following storage systems.

Storage system	Microcode version
IBM FlashSystem A9000 (models 415, 425, and U25)	12.0.x – 12.2.1.x
IBM FlashSystem A9000R (models 415, 425, and U25)	12.0.x – 12.2.1.x
IBM XIV Storage System Gen3 (models 281x-114, 281x-214, and 281x-314)	11.4.2 – 11.6.2.x

Storage system	Microcode version
IBM Spectrum Accelerate deployable software	11.5.0.x – 11.5.4.x

See Cross-system feature use in the IBM Spectrum Accelerate family on the Knowledge Center for related information about the functional features available when used across different IBM Spectrum Accelerate™ family storage systems.

Important:

- IBM XIV Storage System Gen3 and IBM Spectrum Accelerate systems can only be managed with IBM Hyper-Scale Manager 5.1 or later. For systems with versions previous to 5.1.x, use IBM XIV Management Tools version 4.8.x or migrate your system inventory to the newest version of IBM Hyper-Scale Manager. For more information, see "*Migrating IBM Hyper-Scale Manager inventory from XIV Management Tools 4.x*" in the *IBM Hyper-Scale Manager version 5.4 User Guide (SC27-8560-07)*.
 - Deploying IBM Spectrum Accelerate requires certain hardware, software, and configurations of VMware ESXi host machines and vSwitches, interconnect network, and deployment host. Refer to the *IBM Spectrum Accelerate Planning, Deployment, and Operation Guide (SC27-6695)* for further information on deploying IBM Spectrum Accelerate.
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Change log

This change log summarizes the changes that were made in recent 5.x code level versions of IBM Hyper-Scale Manager.

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 5.4.0.c (July 2018)

Version 5.4.0.c of IBM Hyper-Scale Manager resolves the following issue.

Ticket ID	Description
PUI-16231	Fixed: When attempting to upgrade from Hyper-Scale Manager version 5.4.0.a to version 5.4.0.b, there is no option to upgrade. The only options appearing are to uninstall or exit installer.
PUI-16179	Fixed: Changing the Proactive Support SMTP Gateway in the Hyper-Scale Manager System Support form overwrites the from_address parameter in the CLI causing Call Home to fail.

Version 5.4.0.b (June 2018)

Version 5.4.0.b of IBM Hyper-Scale Manager resolved the following issue.

Ticket ID	Description
PUI-15926	Fixed: Cross-gen mirroring is not supported on IBM XIV Gen3 systems with software version 11.6.2.b.

Version 5.4.0.a (March 2018)

Version 5.4.0.a of IBM Hyper-Scale Manager added support for the Cloud Integration component based on IBM Spectrum™ Connect version 3.4.0 (previously known as IBM Spectrum Control™ Base Edition) and resolved the following issues.

Ticket ID	Description
PUI-15623	Fixed: Due to security vulnerabilities, the Hyper-Scale Manager client-server communication protocol is restricted to TLS version 1.2.
PUI-15584	Fixed: In Hyper-Scale Manager, external latency is depicted as Network Latency in the tooltip of the Host latency statistics.

Version 5.4.0 (March 2018)

Version 5.4.0 of IBM Hyper-Scale Manager resolved the following issues.

Ticket ID	Description
PUI-15435	Fixed: In IBM Hyper-Scale, when you try to restore a volume that has multiple snapshots, the snapshot selection automatically jumps to the last snapshot taken.
PUI-14659	Fixed: When you create an asynchronous mirror relation on a Volume in a FlashSystem A9000/R storage system, the tooltip on the RPO (Seconds) field displays a minimum RPO setting of 30, when the minimum is actually 120.
PUI-14219	Fixed: The 5th digit of the System version (for example, 12.1.0.a-1) is not displayed in the Hyper-Scale Manager UI.
PUI-14211	Fixed: When you add a host to a cluster, the host mapping is lost.
PUI-14192	Fixed: IBM Hyper-Scale Manager must be restarted after any MES procedure (HW part replacement) is complete.
PUI-8907	Fixed: When you change the RPO for an asynchronous mirror, the interval is updated only on the source system if the destination system is not monitored.

Fixes and features of earlier versions

IBM Hyper-Scale Manager version 5.4.0.c includes all the features and fixes that were included in previous 5.x versions.

To obtain information regarding previously introduced features or issues that were resolved in previous versions, see the PDF publications page on the IBM Knowledge Center for IBM Hyper-Scale Manager (ibm.com®/support/knowledgecenter/SSUMNQ).

Limitations

The following functional limitations apply to IBM Hyper-Scale Manager version 5.4.0.c and may remain in effect in future software versions.

- The XCLI utility needs to be installed separately. For more information on the XCLI utility, see the Overview of the XCLI Utility for XIV Storage System,

Overview of the XCLI Utility for IBM FlashSystem A9000, or Overview of the XCLI Utility for IBM FlashSystem A9000R on the IBM Knowledge Center.

- If you are working with versions of IBM Hyper-Scale Manager or IBM XIV Management Tools previous to version 5.x, a clean installation of IBM Hyper-Scale Manager version 5.x is required. Install IBM Hyper-Scale Manager version 5.x and migrate your existing systems inventory from XIV Management Tools 4.x to the newly installed IBM Hyper-Scale Manager. See the *IBM Hyper-Scale Manager version 5.4 User Guide (SC27-8560-07)* for information.
- IBM Hyper-Scale Manager must be restarted after any MES procedure (HW part replacement) is complete.
- If you are working with a Hyper-Scale Manager version previous to 5.1.1, and want to upgrade to the Cloud Integration component based on IBM Spectrum Connect version 3.4.0, first upgrade to Hyper-Scale Manager version 5.4.0 and then to Hyper-Scale Manager version 5.4.0.c. For more information, refer to Upgrading an existing installation on the IBM Knowledge Center.

Known issues

Following are the known issues in IBM Hyper-Scale Manager version 5.4.0.c, along with possible solutions or workarounds (if available).

Ticket ID	Description
PUI-15557	<p>When working with the Hyper-Scale Manager UI on Mozilla Firefox version 52 or later, you may get a warning that the connection is insecure on certain text fields.</p> <p>Workaround: Connect to Hyper-Scale Manager using HTTPS.</p>
PUI-15551	<p>Hyper-Scale Manager does not display the correct timestamp of the last replicated snapshot (LRS) in asynchronous mirroring relations.</p> <p>Workaround: To see the correct timestamp of the LRS, either view the volumes list from the CLI, or calculate how much time has passed since the last synchronization (Effective RPO) of the mirrored volumes in the Hyper-Scale Manager UI.</p>
PUI-15275	<p>Logging in to Hyper-Scale Manager for the first time as an LDAP user does not work on systems running version 11.1.1.</p> <p>Workaround: If you want to log in with the same LDAP user, then log in using a system version later than 11.1.1. If you want to use the same system version, then log in using a non-LDAP user.</p>
PUI-14432	<p>When displaying Written by Host + Forecast statistics for a Host associated to two different systems, the same graph is displayed for both systems.</p> <p>Workaround: No workaround is currently available.</p>
PUI-14331	<p>When the width of a statistics graph is changed, a pinned tooltip doesn't display correctly.</p> <p>Workaround: No workaround is currently available.</p>
PUI-13284	<p>Occasionally when you create a new user, the Add User form appears to be inaccessible, even though it does work.</p> <p>Workaround: No workaround is currently available.</p>

Ticket ID	Description
PUI-13092	<p>In some areas of the UI, when the server and web browser are set to different locales, there are occasional globalization issues that may cause characters to appear incorrectly.</p> <p>Workaround: Adjust the server or client locales to be the same.</p>
PUI-12196	<p>Even when deleted from a system, a user can still log in to Hyper-Scale Manager for approximately 20 minutes and view (but can't alter) objects.</p> <p>Workaround: From the Management Server menu, select Manager Configuration to display the Inventory (Home) form. From the Actions menu, select Inventory > Re-authenticate all Users.</p>
PUI-10892	<p>Occasionally, when you want to create a new Host Mapping and click the + to add a new entry for Volume private mapping, two blank entries appear instead of only one as is expected.</p> <p>Workaround: Close the entry, cancel the task, and restart the procedure to create a new Host Mapping.</p>
PUI-10355	<p>A system in the Hyper-Scale Manager inventory isn't displayed when an incorrect timezone is defined on that specific system.</p> <p>Workaround: Configure a valid time zone on the system using the <code>timezone_set</code> CLI command. A list of valid time zones can be retrieved using the <code>timezone_list</code> command.</p>
PUI-10093	<p>Three-way mirroring is not supported.</p> <p>Workaround: No workaround is currently available.</p>
PUI-9429	<p>There is no upgrade path from IBM Hyper-Scale Manager version 4.x to version 5.x. See the <i>IBM Hyper-Scale Manager version 5.3 User Guide (SC27-8560-06)</i> for information on how to migrate your existing systems inventory from XIV Management Tools version 4.x to the newly installed IBM Hyper-Scale Manager.</p> <p>Workaround: No workaround is currently available.</p>
PUI-9034	<p>Adding a mirrored Volume to a mirrored Consistency Group won't work if the remote system is not monitored, since the RPO and schedule of the remote mirrored Consistency Group are unavailable.</p>
PUI-8858	<p>Creating a mirror in mass configuration fails when the Volumes aren't in the same Domain.</p> <p>Workaround: No workaround is currently available.</p>
PUI-8840	<p>If the login user is not defined on the destination system when you Create Mirror, the destination Domain/Pool fields are empty.</p> <p>Workaround: Define the login user on both the source and destination systems.</p>
PUI-8808	<p>When Capacity statistics data is collected over a 3-day interval (the minimum number of days for collecting data for Capacity graphs), the graphs with the forecast are not shown.</p> <p>Workaround: No workaround is currently available.</p>

Ticket ID	Description
PUI-8750	The last data point on the Capacity statistics forecast graph is greater than the System's physical size. Workaround: No workaround is currently available.
PUI-8735	The Capacity statistics interval between the first date of the historical data displayed and the last date of the forecast data displayed is not accurate. Workaround: No workaround is currently available.
PUI-8592	When you select Last Month as the Range on a Capacity statistics graph, the first day of the month is not displayed on the x-axis. Workaround: The tooltip for this day displays the correct data.
PUI-8560	The Host and LUN dialog box in the Volume Mapping form does not close when you click on the "x". Workaround: Select Cluster in the capsule before clicking Create Mapping .
PUI-7745	When working with the Hyper-Scale Manager UI on Mozilla Firefox, copy/paste doesn't work on fields that are not editable. Workaround: No workaround is currently available.

Related information and publications

Additional information and publications related to IBM Hyper-Scale Manager can be found on the following information sources.

- IBM Hyper-Scale Manager on IBM Knowledge Center (ibm.com/support/knowledgecenter/SSUMNQ)
- IBM Flash Storage and Solutions marketing website (ibm.com/systems/storage/flash)
- IBM FlashSystem A9000 on IBM Knowledge Center (ibm.com/support/knowledgecenter/STJKMM)
- IBM FlashSystem A9000R on IBM Knowledge Center (ibm.com/support/knowledgecenter/STJKN5)
- 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 Knowledge Center (ibm.com/support/knowledgecenter)
- IBM Storage Redbooks® website (redbooks.ibm.com/portals/storage)

IBM Hyper-Scale Manager documentation set

IBM Hyper-Scale Manager 5.x currently has the following documentation set.

IBM Hyper-Scale Manager publications	Description
<i>Release Notes</i>	Describes what's new, requirements, compatibility, change log, and known issues information in the latest version.
<i>User Guide</i>	Describes how to install, configure, and operate IBM Hyper-Scale Manager.
<i>Quick-Start Guide</i>	Walks you through installing the IBM Hyper-Scale Manager software and initial configuration of the GUI.
<i>REST API Specifications</i>	Provides specifications of the IBM Hyper-Scale Manager Representational State Transfer (REST) application programming interface (API).

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