

IBM XIV Host Attachment Kit for HP-UX  
Version 2.4.0

*Release Notes*



**First Edition (March 2015)**

This document edition applies to version 2.4.0 of the IBM XIV Host Attachment Kit for HP-UX software package. Newer document editions may be issued for the same version in order to add missing information or amend typographical errors. The edition is reset to "First Edition" for every newly released version.

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## Overview

The IBM® XIV® Host Attachment Kit (HAK) for HP-UX is a software pack that simplifies the task of connecting an HP UNIX host to the IBM XIV Storage System.

The HAK provides a set of command-line interface (CLI) tools that help host administrators perform different host-side tasks, such as: detect any physically connected XIV storage system (single system or multiple systems), detect XIV volumes, define the host on the XIV storage system, run diagnostics, and apply best practice native multipath connectivity configuration on the host.

You can download the IBM XIV Host Attachment Kit software package at any time from the IBM Fix Central website ([www.ibm.com/support/fixcentral](http://www.ibm.com/support/fixcentral)).

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## Compatibility and requirements

The IBM XIV Host Attachment Kit for HP-UX is compatible with different versions of the HP-UX operating system and the XIV storage system, as well as with different HBAs and multipath solutions.

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**Note:** This section applies to version 2.4.0. For information about the compatibility and requirements of a previous host attachment kit version, refer to its relevant release notes.

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### Supported HP-UX versions

The IBM XIV Host Attachment Kit for HP-UX supports different HP Unix versions or editions, as listed in the following table.

Operating system	Architecture
HP-UX 11i v3	Intel Itanium (IA-64)

### Supported storage systems

Version 2.4.0 of the IBM XIV Host Attachment Kit for HP-UX supports different XIV microcode versions, as listed in the following table.

Storage system	Microcode version
IBM XIV Storage System	10.2.4.x 11.0.x, 11.1.x, 11.2.x, 11.3.x, 11.4.x, 11.5.0, 11.5.1

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**Note:** Newer microcode versions may also be compatible. When a newer XIV microcode version becomes available, refer to the latest XIV storage system release notes. You can obtain the latest XIV storage system release notes on the IBM XIV Storage System Information Center ([publib.boulder.ibm.com/infocenter/ibmxiv/r2](http://publib.boulder.ibm.com/infocenter/ibmxiv/r2)).

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## Supported HBAs

The IBM XIV Host Attachment Kit for HP-UX supports different host bus adapter (HBA) brands and types.

For the latest support information and compatibility matrix, see the IBM System Storage® Interoperation Center website ([www.ibm.com/systems/support/storage/config/ssic](http://www.ibm.com/systems/support/storage/config/ssic)).

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**Note:** For best performance, install the latest firmware and drivers for the HBAs that are in use. The HBA vendor should provide the latest firmware and drivers.

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**Attention:** The IBM XIV Host Attachment Kit for HP-UX does not support iSCSI connectivity. Only Fibre Channel (FC) is supported.

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## Supported multipath I/O solutions

The IBM XIV Host Attachment Kit for HP-UX supports the following multipath solutions:

- Native multipath I/O (MPIO)
- Veritas Dynamic Multipathing (DMP) 5.0, 5.1, or 6.x (including native support for XIV in Veritas Storage Foundation 5.1)

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**Important:**

- For proper Active/Active multipathing using Veritas Dynamic Multipathing 5.0, install the Symantec Array Support Library for IBM XIV, which can be downloaded from the Symantec Enterprise Technical Support website ([www.symantec.com/business/support/index?page=home](http://www.symantec.com/business/support/index?page=home)).
  - Using more than one multipath I/O framework on the same host is not supported.
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## Change log

This section summarizes the changes made in different version releases of the IBM XIV Host Attachment Kit for HP-UX.

### Version 2.4.0 (March 2015)

Version 2.4.0 adds support for XIV microcode version 11.5.1.

### Version 2.3.0 (August 2014)

Version 2.3.0 added support for XIV microcode version 11.5 and includes the following enhancements and fixes.

Ticket ID	Description
HA-250756*	<b>Enhancement:</b> The <code>--list (-L)</code> command option can be used with <code>xiv_diag</code> to display information that is to be gathered by the utility.  For more information, refer to the user guide.

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Ticket ID	Description
HA-261361*	<b>Enhancement:</b> Added support for the XIV multi-tenancy feature, allowing work with different and separate storage domains that are defined on the same XIV storage system. This enhancement applies only to XIV microcode version 11.5 or later.
HA-261223*	<b>Fixed:</b> A general error message appears when running <b>xiv_attach</b> , <b>xiv_fc_admin</b> , or <b>xiv_iscsi_admin</b> if non-English characters are used in the XIV credentials.

\* Applies to all supported operating systems.

## Version 2.2.0 (November 2013)

Version 2.2.0 added support for version 11.4.0 of the XIV microcode and included the following enhancement and fix.

Ticket ID	Description
HA-261142*	<b>Enhancement:</b> The Host Profiler utility ( <b>xiv_host_profiler</b> ) can now detect the microcode versions of the XIV systems to which the host is connected. In addition, users can use the <b>--xiv-microcode</b> option with the <b>--analyze</b> command argument in order to run the host profile analysis against a specific microcode version.
HA-261227	<b>Fixed:</b> Scheduled tasks that are set with <b>xiv_host_profiler</b> or <b>xiv_attach</b> for running the Host Profiler utility might fail if there are other scheduled tasks that are defined to occur exactly at midnight (00:00).

\* Applies to all supported operating systems.

## Version 2.1.0.1 (August 2013)

Version 2.1.0.1 included the following hotfix and change.

Ticket ID	Description
HA-261196	<b>Fixed:</b> In some cases, a general error (type 'exceptions.AttributeError') might occur if <b>xiv_devlist</b> , <b>xiv_attach</b> , or <b>xiv_fc_admin</b> is used when the online volume migration (IBM Hyper-Scale Mobility feature) is in <b>Proxy</b> state.
HA-261181*	<b>Change:</b> In the <b>xiv_devlist</b> output, "OLVM State" was renamed to "Hyper-Scale Mobility".

\* Applies to all supported operating systems.

## Version 2.1.0 (June 2013)

Version 2.1.0 added support for version 11.3.0 of the XIV microcode and for the IBM Hyper-Scale Mobility (online volume migration) feature.

Additional changes in version 2.1.0:

Ticket ID	Description
HA-231357*	<b>Enhancement:</b> The <code>--no-headers</code> argument can be used with the <code>xiv_devlist -t csv</code> and <code>xiv_syslist -t csv</code> commands to generate CSV output without column headers.
HA-253044*	<b>Enhancement:</b> An additional step in the <code>xiv_attach</code> procedure allows scheduling a task for running the Host Profiler utility on the host. For more information, refer to the user guide.
HA-256729*	<b>Fixed:</b> In some cases, the <code>xiv_host_profiler --analyze</code> command might generate notices that are unrelated to the host processor architecture.
HA-257071	<b>Fixed:</b> The <code>xiv_devlist</code> output is limited to 80 characters per line, ignoring any console-defined screen width.
HA-261114	<b>Fixed:</b> Instead of running once as scheduled, Host Profiler scheduled tasks run every minute within the specified hour. <b>Note:</b> Scheduled tasks that were created with version 2.0.0 should be removed and redefined with version 2.1.0.
HA-261126*	<b>Fixed:</b> <code>xiv_devlist</code> might exit with error messages when running on a host connected to a storage device other than the XIV storage system.
HA-8442*	<b>Fixed:</b> <code>xiv_host_profiler</code> and <code>xiv_syslist</code> might exit with error messages when running on a host connected to a storage device other than the XIV storage system.

\* Applies to all supported operating systems.

## Version 2.0.0 (March 2013)

Version 2.0.0 included the following enhancements.

Ticket ID	Description
HA-26055*	<b>Enhancement:</b> A new host diagnostics utility, Host Profiler ( <code>xiv_host_profiler</code> ), is now available. The utility collects comprehensive host configuration information, creates a profile based on this information, and allows detailed analysis of the collected information. For more information, refer to the Diagnostics chapter in the IBM XIV Host Attachment Guide. <b>Note:</b> The Host Profiler utility is compatible only with XIV microcode version 11.2 or later.
HA-251470	<b>Enhancement:</b> Reduced HAK package size, requiring less disk space.

\* Applies to all supported operating systems.



## Version 1.10.0 (September 2012)

Version 1.10.0 included the following fixes.

Ticket ID	Description
HA-234368	<b>Fixed:</b> When no volumes are mapped to the host, some <b>module:port</b> FC targets are missing from the <b>xiv_syslist</b> report.
HA-236858*	<b>Fixed:</b> <b>xiv_devlist</b> does not display the correct size of volumes that are larger than 2.2 TB.
HA-238118	<b>Fixed:</b> <b>xiv_devlist</b> may report a wrong number of active paths.

\* Applies to all supported operating systems.

## Version 1.9.0 (June 2012)

Version 1.9.0 included the following enhancements and fixes.

Ticket ID	Description
HA-10663	<b>Enhancement:</b> Detailed on-screen help prompt is now available for the different HAK utilities using the <b>man</b> command option in the following format:  man xiv_attach man xiv_fc_admin man xiv_syslist man xiv_devlist man xiv_diag
HA-73943*	<b>Enhancement:</b> The <b>--path</b> optional argument is now available for the <b>xiv_diag</b> command, allowing one-step definition of the directory into which the report file should be generated. For more information, refer to the user guide.
HA-228028	<b>Fixed:</b> <b>xiv_devlist</b> halts and prompts an index error when used after a WWPN port is deleted from the host definition on the XIV storage system.
HA-233433*	<b>Fixed:</b> In some cases, <b>xiv_syslist</b> may fail with a general error prompt (ValueError exception).

\* Applies to all supported operating systems.

## Version 1.8.0 (March 2012)

Version 1.8.0 included the following enhancements and fixes.

Ticket ID	Description
HA-179589*	<p><b>Enhancement:</b> A new utility, <b>xiv_syslist</b>, has been added to the IBM XIV Host Attachment Kit in order to provide broader and more customized information than the output of the <b>xiv_fc_admin -L</b> and <b>xiv_iscsi_admin -L</b> commands.</p> <p>Using the <b>xiv_syslist</b> command and its optional arguments, users can view different details of all XIV storage systems that are connected to the host. For more information, refer to the IBM XIV Host Attachment Guide.</p>
HA-164283	<p><b>Fixed:</b> <b>xiv_devlist</b> does not list the logical unit number (LUN) of XIV volumes.</p>

\* Applies to all supported operating systems.

## Known issues

This section details the known issues in version 2.4.0 of the IBM XIV Host Attachment Kit for HP-UX, along with possible solutions or workarounds (if available).

Ticket ID	Description
HA-19873	<p>When using <b>xiv_devlist</b>, a volume that is reserved by another host appears as an unreachable device.</p> <p>Currently there is no workaround or solution for this limitation (HA-19873).</p>
HA-21126	<p><b>xiv_devlist</b> does not identify a volume assigned to LUN0. Related issue: HA-100800.</p> <p>Currently there is no workaround or solution for this limitation (HA-21126).</p>
HA-58086	<p><b>xiv_devlist</b> does not report accurate data after deleting the host port definition on the XIV system.</p> <p>Currently there is no workaround or solution for this limitation (HA-58086).</p>
HA-97194	<p>A conflict occurs when using the same LUN (logical unit number) on a host to map different volumes on different XIV storage systems.</p> <p>To avoid this issue, always assign different logical unit numbers when connecting to more than one XIV storage system.</p>

Ticket ID	Description
HA-100800	<p data-bbox="712 226 1214 254">Mapping the LUN0 volume causes errors.</p> <p data-bbox="712 285 1458 375">Due to the distinctive properties of the XIV LUN0 volume (on any storage pool), mapping it to the host causes numerous errors or performance problems.</p> <p data-bbox="712 407 1276 464">Accordingly, mapping the LUN0 volume is not recommended.</p>
HA-209680	<p data-bbox="712 485 1458 541">When using the Veritas multipathing framework, <b>xiv_devlist</b> displays the native device names of newly mapped volumes.</p> <p data-bbox="712 573 1458 636">To resolve this issue, run the Veritas device rescan command: <b>vxdctl enable</b></p>
HA-261252	<p data-bbox="712 657 1458 714">The HAK utilities fail with a general error message when the host name contains more than 8 characters.</p> <p data-bbox="712 745 1458 804">To avoid this issue, make sure that the host name contains 8 characters or less.</p>

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## Related information and publications

You can find additional information and publications related to the IBM XIV Host Attachment Kit for HP-UX on the following websites.

- IBM Storage Host Software Solutions Information Center ([publib.boulder.ibm.com/infocenter/strhosts/ic](http://publib.boulder.ibm.com/infocenter/strhosts/ic))
- IBM XIV Storage System Information Center ([publib.boulder.ibm.com/infocenter/ibmxiv/r2](http://publib.boulder.ibm.com/infocenter/ibmxiv/r2))
- HP-UX 11i website ([h71028.www7.hp.com/enterprise/w1/en/os/hpux11i-overview.html](http://h71028.www7.hp.com/enterprise/w1/en/os/hpux11i-overview.html))

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- IBM Directory of Worldwide Contacts website ([www.ibm.com/planetwide](http://www.ibm.com/planetwide))



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