

IBM XIV Storage System Software



Host System Attachment Guide for AIX

1.0.2.0

Note:

Before using this information and the product it supports, read the general information in “Notices” on page 5.

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Host System Attachment Guide for AIX

The 1.0.2.0 version of the Host System Attachment for AIX is available for installation or upgrade. It is the only version that is supported by IBM XIV.

Note: Do not install previous versions of this package.

Standard IBM Installation

The Host System Attachment for AIX is an IBM standard package:

`disk.fcp.2810.rte 1.0.2.0`

You can install it via:

- Smitty install
- Invoking `geninstall`
- Directly, via the `installp` command

The XIV package depends on AIX fixes that must be installed prior to the installation. In addition, the IBM XIV installation package has to be configured, also prior to the installation. And the XIV package performs an important post-install function.

For these reasons, be sure to follow the detailed installation procedure described in the section 'Detailed Installation Procedure' below.

Installation and upgrade

Use this package for a clean installation or to upgrade from previous versions. IBM supports a connection by AIX hosts to IBM XIV Storage System only when this package is installed.

Connections between AIX hosts to IBM XIV Storage System are supported only when this package is installed.

Removing this package

This package can be removed, if support for connection to IBM-XIV Storage System is no longer required, though there is no requirement to do so.

To remove the installed package:

1. Upgrade to this version.
2. Remove the installed package.
3. **Reboot** immediately after a successful removal.

Installing previous versions

Do not install previous versions of this package. Installing previous versions may cause problems which could render your server unbootable.

Removal of customized parameters

When being installed, the package removes any customized parameters for AIX hdisk devices corresponding to XIV disks.

Configuration decision - load balancing

round_robin

By default, the package configures multipathing to work in a round_robin mode with queue depth of 1. Currently, queue depth must be 1 if you are multipathing in round_robin mode. The limitation of queue_depth=1 in round_robin mode for XIV devices will be removed in a future version of AIX.

failover_only

As setting the queue depth to 1 may incur a performance penalty, you may alter the multipathing mode to failover_only and use a higher queue depth, such as 32.

Note: If you choose failover_only, then only one path will be used for any given hdisk.

Setting environment variables

To make failover_only algorithm and a given queue depth the default, set the following environment variables prior to package installation to:

```
export XIV_DEF_ALGO=failover_only
export XIV_DEF_QD=32 (or another value)
```

Required eFix

The package installation requires certain IBM eFix to be installed prior to its installation. Please see the following table.

AIX version	Required patch
AIX 5.3 TL7 and previous	Not supported
AIX 5.3 TL7	IZ28969
AIX 5.3 TL8	IZ28970
AIX 5.3 TL9	IZ28047
AIX 5.3 TL9 and later	iFIX/APAR is not required
AIX 6.1 TL0	IZ28002
AIX 6.1 TL1	IZ28004
AIX 6.1 TL2	IZ28079
AIX 6.1 TL2 and later	iFIX/APAR is not required

A detailed installation procedure

1. Check whether you have a regular AIX fix package installed for the 2810.
`instfix -iv | grep "2810 round".`
 - If you have a regular fix package installed, go to step 6 below.
 - If you do not have a regular fix package installed, proceed to step 2.

2. Download either a regular fix (according to the table above) or the latest service pack.
3. Check whether you have an eFIX for XIV installed
`emgr -l | grep XIV`.
 - If you don't have an eFIX for XIV installed, go to step 5 below.
 - If you do have an eFIX for XIV installed, note the eFIX ID and proceed to step 4.
4. Remove the eFIX with `emgr -r -L` (use the eFIX ID you got at step 3 above).
***** Do NOT reboot*****.
5. eFIX installation.
Install the downloaded regular fix or a full service pack.
Be sure installation is successful.
***** Do NOT reboot *****.
6. XIV package installation.
Install the XIV package.
Reboot immediately after the successful XIV package installation.

Following the installation

Following the package installation and reboot, XIV Fibre Channel disks are multipathed and seen as:

IBM 2810XIV Fibre Channel Disks.

LUN 0 (if a real volume is not assigned to it) is not multipathed and is seen as:

IBM 2810XIV-LUN-0 Fibre Channel Array Controller.

This is a correct and supported configuration.

If XIV disks are seen as

MPIO Other FC SCSI Disk Drive ,

it means that the XIV package is not installed and you got some built-in AIX multipathing support for XIV introduced in AIX service packs released in August 2008 (for example, AIX 6.1 TL2).

Such a configuration is not supported by IBM XIV. IBM supports a connection by AIX hosts to IBM-XIV Storage System only when this package is installed.

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