

HACMP configuration information for FAST and Storage Manager v8.21 on pSeries/AIX Servers

April 16, 2003

Supported configurations:

The following combinations of HACMP, AIX, and FAST software are supported:

Cluster Software	AIX version	FAST200	FAST500	FAST700	Storage Manager version
HACMP v4.4.1 ES & ESCRM	v4.3.3, v5.1.0	X	X	X	v8.21
HACMP v4.5 ES & ESCRM	v5.1.0, v5.2.0	X	X	X	v8.21

AIX and HACMP software requirements:

HACMP ES & ESCRM v4.4.1 with AIX v4.3.3, (Maintenance Level 10 (4.3.3.75)) with the following APARs.

AIX 4.3.3 APARs	HACMP v4.4.1 APARs
IY40207	IY31483
IY33608	IY31489
	IY38234

HACMP ES & ESCRM v4.4.1 with AIX v5.1 (Maintenance Level 3 (5.1.0.35)) with the following APARs.

AIX v5.1.0 APARs	HACMP v4.4.1 APARs
IY40219	IY31483
IY42821	IY31489
	IY38234

HACMP ES & ESCRM v4.5 with AIX v5.1 (Maintenance Level 3 (5.1.0.35)), with the following APARs.

AIX v5.1.0 APARs	HACMP v4.5 APARs
IY40219	IY32874
IY42821	IY37247
IY37897	

HACMP ES & ESCRM v4.5 with AIX v5.2.0, with the following APARs.

AIX v5.2.0 APARs	HACMP v4.5 APARs	RCST APARs
IY35693	IY32874	IY36626
IY42741	IY37247	
IY40209		
IY42822		
IY37746		

For the most current information on AIX and Device Driver versions for FAST, see the aixreadme file posted on:

<http://www.pc.ibm.com/qtechinfo/MIGR-43839.html>

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FAStT software and firmware requirements

FAStT Storage Manager v8.21

If running the client software from an AIX host use the following version:

v8.21: 08.21.G5.02

FAStT200 running the following combination of Snapware (microcode) and NVSRAM

Snapware:05.20.12.09 (*web download: 05.20.12.10*)

NVSRAM: CNV3542R821NT030 (FAStT200)

FAStT500 or FAStT700 running the following combinations of Appware (microcode) and NVSRAM

Appware: 05.21.05.09 (*web download: 05.21.05.10*)

NVSRAM: CNV3552R821NT012 (FAStT500)

NVSRAM: CNV1742R821NT012 (FAStT700)

For the most current information on FAStT Software and firmware versions, see the aixreadme file posted on:

<http://www.pc.ibm.com/qtechinfo/MIGR-43839.html>

Configuration limitations

For the purposes of this document, FAStT = FAStT200, FAStT500, or FAStT700.

Install the FAStT as is required for base pSeries/AIX environments. Please consult the IBM FAStT Storage Manager v8.21 for UNIX and AIX environments and aixreadme files prior to installation. Please contact an IBM Storage Specialist if you have further questions.

General limitations and restrictions for HACMP ES & ESCRM

- Switched fabric connection only, no direct connection allowed between host node and FAStT.
- HACMP C-SPOC cannot be used to add a FAStT disk to AIX via the 'Add a Disk to the Cluster' facility.
- The HACMP C-SPOC facility does not support enhanced concurrent mode volume groups. It is IBM's intention to remove this restriction with a future PTF.
- Single Node Quorum is not supported in a two node GPFS cluster with FAStT disks in the configuration.
- pSeries/AIX Clusters are not supported in a Heterogeneous environment at this time.

Applicable pSeries/AIX limitations (not HACMP specific).

- Each AIX host attaches to FAStT storage servers using **pairs** of Fibre Channel adapters (HBA).
 - For each adapter pair, one HBA must be configured to connect to controller "A", and the other to controller "B".
 - Each HBA pair must be configured to connect to a single partition in a FAStT storage server or multiple FAStT Storage servers (fanout).
 - To attach an AIX host to a single or multiple FAStTs with two partitions, 2 HBA pairs must be used.
- The maximum number of FAStT partitions (host groups) per AIX host per FAStT storage subsystem is 2.
- SAN Switch Zoning Rules
 - Each HBA within a host must be configured in a separate zone from other HBAs within that same host, when connected to the same FAStT controller port. In other words, only 1 HBA within a host can be configured in the same zone with given FAStT controller port.
 - Hosts within a cluster can share zones with each other.

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- For highest availability, distributing the HBA and FAStT connections across separate FC switches will minimize the effects of a SAN fabric failure.

Other usage notes specific to HACMP environments

- Concurrent and Non-Concurrent modes are supported with HACMP v4.4.1 & v4.5 and FAStT running SM v8.21, including Hot Standby and Mutual Take-over.
- HACMP v4.4.1 & v4.5 is supported on Regatta LPAR clustered configurations.
- HACMP clusters can support 2 - 32 servers per FAStT partition. In this environment, be sure to read and understand the AIX device drivers queue depth settings as documented in the [IBM FAStT Storage Manager v8.21 Installation and Support Guide for UNIX and AIX environments](#) publication.
- Non-clustered AIX hosts can be connected to the same FAStT that is attached to an HACMP cluster (with HACMP v4.4.1 & v4.5 and FAStT running SM v8.21), but must be configured on separate FAStT host partitions.