

HP Cluster Platform

Voltaire Supported Firmware Matrix



This document describes the minimum firmware versions required for correct operation of the InfiniBand Interconnect with HP Cluster Platform components.

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Supported Firmware Versions

The tables in this document list the minimum firmware versions required for correct operation of the InfiniBand Interconnect with HP Cluster Platform components. HP recommends that you install the latest released firmware version, which may be newer than the versions listed in this document. You can also find Voltaire InfiniBand documentation at the following URL:

http://www.voltaire.com/partner_login.htm

See the section on grid computing. You will need the appropriate login credentials, which are available from Voltaire.

Firmware Installation/Upgrade Guidelines

IMPORTANT: Read these guidelines before installing or upgrading firmware on your HP Cluster Platform system components:

Follow these guidelines when installing or upgrading firmware:

- Never downgrade to an older version of firmware unless you are specifically instructed to do so by HP Support.
- Contact HP Support if you are not sure what to do regarding firmware versions.

Qualified Solution Matrix Tables — April 2008

Use the tables in this document to identify the firmware image required for a component. At a system level, you must ensure that all components conform to the Solution Matrix.

CAUTION: Although the RevC PCI-X and PCI-e boards are functionally supported with Host Stack 3.4.5.x, the firmware upgrade utility cannot upgrade the RevC firmware. If you are using the Version 3.4.5 Host Stack, you must upgrade the Flint Utility in the driver. Host Stack 3.4.5.x and later fully support the RevC cards, including firmware upgrades using the Flint Utility.

Refer to the following tables to identify the HCA for your platform. Because some clusters contain various HCA types, verify the HCA type in each node before upgrading.

Current GridStack DDR Products Interoperability Matrix

The following tables show the current Voltaire GridStack DDR qualified solutions. Protocols, applications interoperability, and features may vary for different products and solutions. Please refer to your product's release notes for more details.

Table 1. Host Software

Software Products	OS — Kernel	HCA Support	Revision
Voltaire OFED for Linux OFED 1.2 based	RH EL 4 up4, up5 SLES 10, SLES 10 SP1, (SLES 10 SP1 UP1 for PPC only) RHEL 5 RHEL UP1	Full support for all HCA cards	5.1.3, 4.3.5c_8
GridVision BladeFM	SLES 10, RH 4 up 4		4.2
Voltaire GridStack for Windows	Windows 2003 SP1, SP2 64/32bit Windows CCS SP1	No Windows support for Connect-X	2.5.X

Table 2. DDR Host Channel Adapters

Model (HP)	Description	HP PSID	Firmware Version	Firmware Image
431039-B21	HP InfiniBand 4X DDR PCI-e single-port HCA	HP_0070000001	1.2.0	fw-25204-1_2_000-431039-B21.bin
409376-B21	HP InfiniBand 4X DDR PCI-e dual-port HCA	HP_0060000001	4.8.930	fw-25208-4_8_930-409376-B21_A1.bin
448397-B21	HP InfiniBand 4X DDR Connect-X PCI-e dual-port HCA	HP_09D0000001	2.3.000	fw-25408-2_3_000-448397-B21.bin
448262-B21	HP 4X DDR InfiniBand dual-port mezzanine HCA (Connect-X)	HP_08B0000001	2.3.000	fw-25418-2_3_000-448262-B21-clp-126.bin
483513-B21	HP InfiniBand 4X DDR PCI-e dual-port 0 memory HCA	HP_0090010002	5.3.000	fw-25218-5_3_000-483513-B21_A1.bin
483514-B21	HP InfiniBand 4X DDR Connect-X PCI-e G2 dual-port HCA	HP_09D0000008	2.3.000	fw-25408-2_3_000-483514-B21_A1.bin

Table 3. HP c-Class Adapters

Model (HP)	Description	HP PSID	Firmware Version	Firmware Image
410398-B21	HP 4X DDR InfiniBand switch module	HP_0020000001	1.0.0	InfiniScale_III_fw-47396-1_0_0.tgz + 410397-001_auto.INI
409377-B21 or 410533-B21	HP BladeSystem single-port DDR HCA	HP_0010000001	1.2.0	hpmezz-1.1.0.bin
448262-B21	HP 4X DDR IB dual-port mezzanine HCA (Connect-X)	HP_08B0000001	2.3.000	fw-25418-2_3_000-448262-B21.bin

Table 4. Embedded Interconnects/Routers

Model	Software	Firmware
ISR 9024D-M	GridVision Integrated 3.4.5_B467	1.0.0 ISR9024D-M 10.11.INI ISR9024D 10.11.INI
ISR 9288/9096 DDR-X	GridVision Integrated V5.0.0_B843	1.0.0 sLB-24D PSID VLT1120031011 sFB-4D PSID VLT1130031011 sFB-12D PSID VLT1140031011
ISR 2004 2012	ISR2012 - GVI V5.0.0_B843	1.0.0 sLB-2024 PSID VLT1030031011 sFB-2012 PSID VLT1170031011 sFB-2004 PSID VLT1160031011 sRB20210G-1UP VLT1180031011 sRB20210G-2LOW VLT1190031011
sRB-20, IPR-1G	IPR 1.7.1_8	
sRB20210G	1.0.0	
sR4G storage router	5.1 Build 172	

Current GridStack SDR Products Interoperability Matrix

The following tables show the current Voltaire GridStack SDR qualified solutions. Protocols, applications interoperability, and features may vary for different products and solutions. Please refer to your product's release notes for more details.

Table 5. SDR Host Software

Software Products	OS — Kernel	Revision
Voltaire OFED for Linux OFED 1.3 based	RH EL 4 up4, up5 SLES 10, SLES 10 SP1, (SLES 10 SP1 UP1 for PPC only) RHEL 5 RHEL UP1	5.1.3, 4.3.5c_8
GridVision BladeFM2.0*	SLES 10, RH 4 up 4	4.2
Voltaire GridStack for Windows	Windows 2003 SP1, SP2 64/32bit Windows CCS SP1	2.5.x

*Not officially supported by Voltaire.

Table 6. Host Channel Adapters

Model (HP)	Description	HP PSID	Firmware Version	Firmware Image
380299-B21	InfiniBand 4X PCI-X dual-port host adapter	HP_0040000001	3.5.0	fw-23108-3_5_000-380299-B21_A1.bin
380298-B21	InfiniBand 4X SDR (RevC) PCI-E dual-port host adapter	HP_0050000001	4.8.930	fw-25208-4_8_930-380298-B21_A1.bin
431038-B21	HP IB 4X SDR PCI-e single port memory-free HCA	HP_0080000001	1.2.0	fw-25204-1_2_000-431038-B21.bin

Table 7. Embedded Interconnects/Routers

Model	Software	Firmware
ISR 9024S-M	GridVision Integrated 3.4.5 B467	1.0.0
9288/9096	GridVision Integrated 5.0.0 B843	1.0.0
sRBD, IPR-1G	IPR 1.7.1_8	

Previous GridStack DDR Products Interoperability Matrix

The following tables show the previous Voltaire DDR GridStack solutions. Protocols, applications interoperability, and features may vary for different products and solutions. Please refer to your product's release notes for more details.

Table 8. DDR Host Software

Software Products	OS — Kernel	Revision	Comments
Voltaire GridStack for Linux	RH AS EL 4 up5 SLES 10 SP1 RHEL 5	4.3.x 4.1	Connect-X only; supported with GridStack 4.1.3.5.c_8
OFED 1.2 based	Windows 2003 SP1, SP2 64-bit/32-bit Windows CCS SP1	2.5	No Windows support for Connect-X

Table 9. Host Channel Adapters

Model (HP)	Description	HP PSID	Firmware Version	Firmware Image
431039-B21	HP InfiniBand 4X DDR PCI-e single-port HCA	HP_0070000001	1.2.0	fw-25204-1_2_000-431039-B21.bin
409376-B21	HP InfiniBand 4X DDR PCI-e dual-port HCA	HP_0060000001	4.8.930	fw-25208-4_8_930-409376-B21_A1.bin
448397-B21	HP InfiniBand 4X DDR Connect-X PCI-e dual-port HCA	HP_09D0000001	2.3.000	fw-25408-2_3_000-448397-B21.bin
448262-B21	HP InfiniBand 4X DDR dual-port mezzanine HCA (Connect-X)	HP_08B0000001	2.3.000	fw-25418-2_3_000-448262-B21-clp-126.bin
483513-B21	HP InfiniBand 4X DDR PCI-e dual-port 0 memory HCA	HP_0090010002	5.3.000	fw-25218-5_3_000-483513-B21_A1.bin
483514-B21	HP InfiniBand 4X DDR Connect-X PCI-e G2 dual-port HCA	HP_09D0000008	2.3.000	fw-25408-2_3_000-483514-B21_A1.bin

Table 10. HP c-Class Adapters

Model (HP)	Description	HP PSID	Firmware Version	Firmware Image
410398-B21	HP 4X DDR InfiniBand switch module	HP_0020000001	1.0.0	InfiniScale_III_fw-47396-1_0_0.tgz + 410397-001_auto.INI
409377-B21 or 410533-B21	HP BladeSystem single-port DDR HCA	HP_0010000001	1.2.0	hpmezz-1.1.0.bin
448262-B21	HP 4X DDR InfiniBand dual-port mezzanine HCA (Connect-X)	HP_08B0000001	2.3.000	fw-25418-2_3_000-448262-B21.bin

Table 11. Embedded Interconnects/Routers

Model	Software	Firmware
ISR 9024D-M	GridVision Integrated 3.4.5	0.8.6
ISR 9288/9096 DDR	GridVision Integrated 3.4.3 or 4.x	0.8.6 sLB-24D PSID VLT1120030904 sFB-4D PSID VLT1130030907 sFB-12D PSID VLT1140030907
ISR 2012 DDR	ISR2012 - GVI V4.1	0.8.6 sLB-2024 PSID VLT1150030912 sFB-2012 PSID VLT1170030912

Previous GridStack SDR Products Interoperability Matrix

The following tables show the previous Voltaire SDR GridStack solutions. Protocols, applications interoperability, and features may vary for different products and solutions. Please refer to your product's release notes for more details.

Table 12. SDR Host Software

Software Products	OS — Kernel	Revision
Voltaire GridStack for Linux OFED 1.2 based	RH AS EL 4 up5 SLES 10 SP1 RHEL 5	4.3.x 4.1
GridVision BladeFM2.0**	SLES 10, RH 4 up 4	4.1
Voltaire GridStack for Windows	Windows 2003 SP1, SP2 64-bit/32-bit Windows CCS SP1	2.5

**Not officially supported by Voltaire.

Table 13. SDR Host Channel Adapters

Model (HP)	Description	HP PSID	Firmware Version	Firmware Image
380299-B21	InfiniBand 4X PCI-X dual-port host adapter	HP_0040000001	3.5.0	fw-23108-3_5_000-380299-B21_A1.bin
380298-B21	InfiniBand 4X SDR (RevC) PCI-e dual-port host adapter	HP_0050000001	4.8.930	fw-25208-4_8_930-380298-B21_A1.bin
431038-B21	HP IB 4X SDR PCI-e single-port memory-free HCA	HP_0080000001	1.2.0	fw-25204-1_2_000-431038-B21.bin

Table 14. Embedded Interconnects/Routers

Model	Software	Earliest Supported Firmware
ISR 9024S-M	GridVision Integrated 3.4.5	0.8.4
ISR 9288/9096	GridVision Integrated 3.4.2 or 4.x	0.8.4 or 0.8.6
sRBD, IPR	IPR 1.5 (solution**)	

**Not officially supported by Voltaire.

IBHOST DDR Products Interoperability Matrix

The following tables show the Voltaire IBHOST DDR products qualified solutions. Protocols, applications interoperability, and features may vary for different products and solutions. Please refer to your product's release notes for more details.

Table 15. Host Software

Software Products	OS — Kernel	Revision
Voltaire GridStack 3.x solution (IBHOST VAPI based solution)	SLES, SP 1,2,3 RH EL 4 UP 1,2,3	3.5.5.x

Table 16. IBHOST DDR Host Channel Adapters

Model (Voltaire)	HP PSID	Firmware
HCA 410Ex-D	Mellanox MHGS18-XT	HCA410Ex-D-25204-1_2_0.img
HCA 400Ex-D	Mellanox MHGA28-1T	HCA400Ex-D-25208-4.8.2.img
HCA 400Ex-MD	Mellanox - MHGA28-XT	fw-25218-5_1_400*

*Not fully certified.

Table 17. Embedded Interconnects/Routers

Model	Software	Firmware
ISR 9024D-M	GridVision Integrated 3.4.5	0.8.6
ISR 9288/9096 DDR	GridVision Integrated V4.0, V4.1	0.8.6 sLB-24D PSID VLT1120030904 sFB-4D PSID VLT1130030907 sFB-12D PSID VLT1140030907
ISR 9024D-M	GridVision Integrated 3.4.5	0.8.6

IBHOST SDR Products Interoperability Matrix

The following tables show the Voltaire IBHOST SDR products qualified solutions. Protocols, applications interoperability, and features may vary for different products and solutions. Please refer to your product's release notes for more details.

Table 18. Host Software

Software Products	OS — Kernel	Revision
Voltaire SDR GridStack for Linux - Solution (IBHOST VAPI based solution)	SLES 9, SP 1,2,3 RH EL 4, UP 1,2,3	3.5.x

Table 19. IBHOST SDR Host Channel Adapters

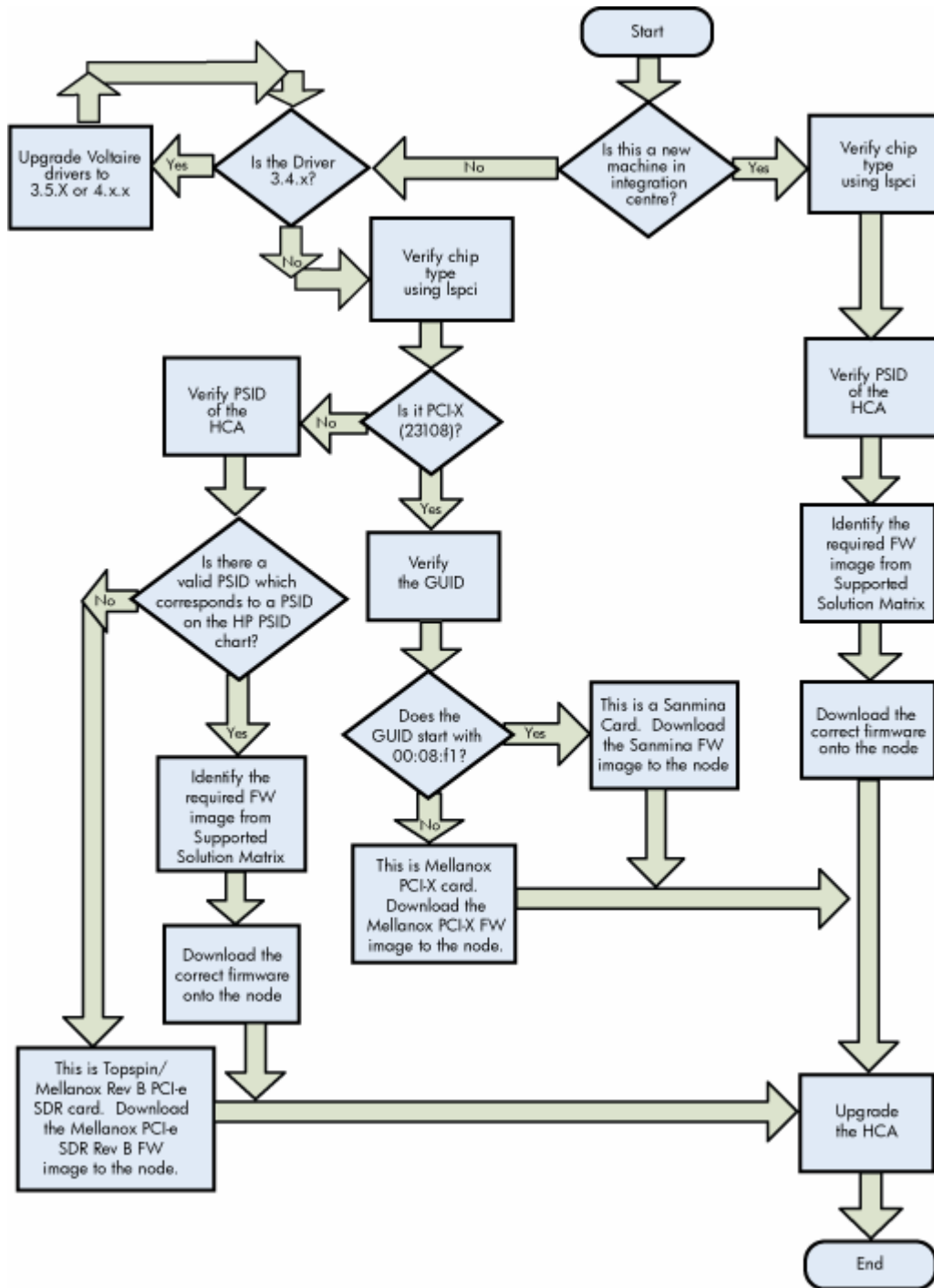
Model (Voltaire)	Vendor Model	Earliest Supported Firmware
All Voltaire supported SDR HCAs (see the current Voltaire HCA table?)		
HCA 400 (SDR PCI-X)	Mellanox (high profile)	HCA400-COUGAR-23108-3_4_0.img
HCA 400 (SDR PCI-X)	SANMINA-SCI	HCA400-SANMINA-23108-3_5_000.img
HCA 400 (SDR PCI-X)	Mellanox (MLX_LP) - MHET2X-1TC	HCA400-MLX_LP-23108-3_5_000.img
HCA 400Ex (SDR PCI-Ex)	Mellanox - MHEL-CF128-T	HCA400Ex-25208-4.8.2.img
HCA 400Ex (SDR PCI-Ex-rC)	Mellanox - MHEL-CF128-T (RevC)	HCA400Ex-rC-25208-4_8_2.img
HCA 400Ex-M	Mellanox - MHEA28-XT	fw-25218-5_1_400
HCA 410Ex (memory-free SDR PCI-Ex)	Mellanox - MHES18-XT	HCA410Ex-25204-1_2_0.img

Table 20. Embedded Interconnects/Routers

Model	Software	Earliest Supported Firmware
ISR 9024S-M	GridVision Integrated 3.4.5	0.8.4
ISR9288/9096	GridVision Integrated 3.4.2 or 4.0	0.8.4 or 0.8.6
ISR6000	Switch 3.3.2	0.5.2

Identifying and Upgrading Voltaire HCA Firmware

Use the following flow chart to identify and upgrade HCA firmware:



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