



Release Notes

InfiniBand Administration Tools (IBADM)

Rev 1.8.1

Mellanox Technologies

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InfiniBand Administration Tools (IBADM) Release Notes

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1 Overview

These are the release notes for Rev 1.8.1 of IBADM, a package of InfiniBand Administration tools. The document includes the following sections:

- This “Overview” which includes the subsections:
 - “Package Tools” on page 3
 - “Firmware Dependencies” on page 4
 - “Software Dependencies” on page 4
 - “Supported Platforms and Operating Systems” on page 4
 - “Interfaces Used for Tool Access” on page 5
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1.1 Package Tools

Detailed installation instructions along with complete descriptions of the various tools in the package can be found in the IBADM User’s Manual, Document no. 2130UM. The following is a list of the available tools in the package, together with a brief description of what each tool performs.

ibls	Lists the available IB systems, devices, and cables in the IB Subnet.
ibmon	Monitors all the devices and systems (for both IB and system related issues).
ibcon	Provides a view of some internal configuration registers of devices.
ibfwmgr	Loads and tracks the IB devices firmware.
ibtopogen	A cluster design tool for fat-tree topologies.

1.2 Firmware Dependencies

Table 1 - Firmware Dependencies

Silicon Type	Required Firmware Version
MT23108 InfiniHost	fw-23108 ver. 3.2.0 or later
MT25204 InfiniHost III Lx	fw-25204 ver. 1.0.1 or later
MT25208 InfiniHost III Ex (InfiniHost mode)	fw-25208 ver. 4.5.2 or later
MT25208 InfiniHost III Ex (MemFree mode)	fw-25218 ver. 5.0.1 or later
MT43132 InfiniScale	fw-43132 ver. 5.2.0 or later
MT47396 InfiniScale III	fw-47396 ver. 0.3.2 or later

1.3 Software Dependencies

Table 2 - Software Dependencies

Software Package	Required Version
Mellanox HCA Driver (thca / vapi)	3.2.2 or later
Transport Access Layer and IPoIB	1.6.1 or later
MST (Mellanox Software Tools)	4.3.2 or later
OpenSM	0.3.2 or later
Perl	5.6 or later
Expat	1.95 or later

1.4 Supported Platforms and Operating Systems

Table 3 lists all supported platforms and operating systems by the tools included in this IBADM package.

Table 3 - Supported Platforms and Operating Systems

Architecture	Operating System	Kernel
X86	RedHat Enterprise Linux 4.0 up2	2.6.9-22.ELsmp
	SuSE SLES 9.0	2.6.5-7.111.5-smp
	SuSE 9.3 Pro	2.6.11.4-20a-smp
AMD64 (Opteron)	RedHat Enterprise Linux AS 4.0 up2	2.6.9-22.ELsmp
	SuSE 9.3 Pro	2.6.11.4-20a-smp
	SuSE SLES 9.0	2.6.5-7.111.19-smp
Intel EM64T²	RedHat Enterprise Linux AS 4.0 up2	2.6.9-22.EL
	SuSE 9.3 Pro	2.6.11.4-20a-smp
	SuSE SLES 9.0 RC5	2.6.5-7.111.19-smp

1.5 Interfaces Used for Tool Access

The following table lists the interfaces used for tool access for Mellanox boards and systems. The table uses the following abbreviations:

IB	(In-Band)	Application runs over InfiniBand (ibfwmgr may use the IPoverIB functionality)
IP	(Out-of-Band)	Application runs over Ethernet
I2C	(Out-of-Band)	Application runs using I2C bus

Table 4 - Interfaces for Tools Access on Mellanox Boards and Systems

Tool	Board or System Support					
	HCA Cards: - InfiniHost PCI-X - InfiniHost III Ex PCI Express - InfiniHost III Lx PCI Express	8 Port Switch Based on the MT43132 InfiniScale switch	96 Port Switch Based on the MT43132 InfiniScale switch	24 Port Switch Based on the MT47396 InfiniScale III switch	24 Port Managed Switch Based on the MT47396 InfiniScale III switch	144 Port Switch Based on the MT47396 InfiniScale III switch
ibls	IB / IP ¹	IB / IP	IB / IP	IB / I2C	IB / IP	IB / IP
ibmon / pm ²	IB / IP	IB / IP	IB / IP	IB / I2C	IB / IP	IB / IP
ibmon / bm ³	NA	IB / IP	IB / IP	IB / I2C	IB / IP	IB / IP
ibfwmgr	IP	IP	IP	IB / I2C	IB / IP	IB / IP
ibcon	IB / IP	IB ⁴	IB ⁴	IB / I2C	IB / IP	IB

1. IP may be native IP or IPoverIB
2. Performance check.
3. Baseboard check.
4. **ibcon** enables accessing an individual InfiniBand device (e.g., an MT43132 InfiniScale or MT47396 InfiniScale III device) within the system by its GUID, but not accessing the whole switch system.

2 Changes and New Features

- Added support for 8 port MT43132 InfiniScale based switch systems
- Reduced list of supported platforms and operating systems (see Table 3 on page 4)

3 Bug Fixes

The following table lists the bugs that were fixed in this Rev 1.8.1 of IBADM.

Table 5 - Bug Fixes

	Description	Details
1.	IBADM demonize does not get installed correctly	Fixed.
2.	MST of IBADM 1.8.0 does not fully support the MT25204 InfiniHost III Lx HCA device	A fixed MST version under IBADM 1.8.1 fully supports the MT25204 device

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4 Known Issues

The following table provides a list of known bugs and limitations in regards to this release of IBADM.

Table 6 - Known Bugs and Limitations

	Description	Details
3.	The -l and -L options of ibls do not display any output	ibls -l and ibls -L do not produce any output if Timeout value in /etc/ibadm.conf is too small. The user can raise the Timeout value to get output.
4.	ibfwmgr does not support the reset option	To be fixed in 3.0.0 release.
5.	LID re-assignment during an In-Band device burn may lead to firmware image corruption on devices in the cluster	If the SM re-assigns port LIDs while ibfwmgr is burning a device via InfiniBand (In-Band), the burn directives will be routed to the wrong device leading to the corruption of its firmware image. Workaround: Do not re-assign LIDs while ibfwmgr is running.
6.	Limited Baseboard-Management-Agent (BMA) access and support	Using ibmon to get BMA data is restricted to Out-Of-Band and for MTS2400 or MTS14400 switch systems. It will be supported in the 2.0.0 release.
7.	Switch SMA Port 0 is not reported in ibmon logs	The ibmon option for querying Switch SMA Port 0 is not functioning
8.	Accessing a switch device undergoing an In-Band burn via the management port may cause the burn to fail	This scenario may cause a contention on the internal I2C-compatible bus. In some cases it may require the switch system to reboot. Workaround: Do not access a switch system via its management port when one of its devices is undergoing an In-Band burn operation
9.	mlxburn supports burning Mellanox HCA cards only	For a non-Mellanox card please consult the board vendor
10.	IBADM cannot run on a machine with the tcpreadline package installed	Workaround: Uninstall the tcpreadline package
11.	ibfwmgr may report incorrect percentile progress while burning multiple MT47396 InfiniScale III switch devices	This may occur if a previous FW burn session was prematurely aborted. Note that this erroneous percentile reporting of progress does not have any real impact on the burning process itself. However, it may double the duration of burning.

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