

Release Notes for the Accelar 1000 Series Products Release 1.0

Accelar 1100/1150 Routing Switch
Accelar 1200/1250 Routing Switch
Accelar Boot Monitor Software Version 1.0.0
Accelar Runtime Software Version 1.0.0
Accelar Device Manager Version 1.0.1
Accelar VLAN Manager Version 1.0.1

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Introduction

These release notes provide the latest software and hardware information for the Bay Networks® Accelar™ 1000 Series products release 1.0, which includes:

- Accelar 1100/1150 Routing Switch chassis and modules
- Accelar 1200/1250 Routing Switch chassis and modules
- Accelar System Software
 - Accelar Boot Monitor version 1.0.0
 - Accelar Runtime Software version 1.0.0
- Accelar Management Software
 - Accelar Device Manager version 1.0.1
 - Accelar VLAN Manager version 1.0.1

The information is presented in the following major sections:

- [System Notes](#)—contains information grouped into major topics relating to the current hardware and system software release.
- [Network Management](#)—contains platform-independent information on network management capabilities of the hardware and software release
- [Device Manager](#)—contains information grouped by platform (all, Solaris and HP/UX, or Windows 95/NT) on topics relating to Device Manager version 1.0.1
- [Runtime Command Line Interface](#)—contains information about the runtime command line interface in Accelar Runtime Software version 1.0.0.

Related Publications

For more information about the Accelar products, refer to the following documents on the Accelar documentation CD:

- *Installing the Accelar 1000 Series Chassis*
(Bay Networks part number 893-01051-A)
- *Using the Accelar 1100/1150 Routing Switch*
(Bay Networks part number 893-01050-A)

- *Using the Accelar 1200/1250 Routing Switch*
(Bay Networks part number 893-01049-A)
- *Reference for the Accelar Management Software*
(Bay Networks part number 893-01052-A)

System Notes

This section describes the latest functionality and known limitations for the Accelar 1000 Series hardware and system software.

VLAN Notes

Policy-based VLANs

The following policy-based virtual LAN (VLAN) configurations are not supported in this release:

- IP subnet-based VLANs
- Protocol-based VLANs for SNA and NetBIOS

These configurations will be supported in a future release.

VLAN Trunking

On trunk (IEEE 802.1q tagged) ports, all untagged frames except Spanning Tree Bridge Protocol Data Units (BPDUs) are dropped. One side effect of this process is the loss of connectivity when a port configuration is changed from access (untagged) to trunk, or from trunk to access, until the peer port is configured the same way. If you use VLAN Manager (VM) to create trunk ports, Bay Networks recommends that you start by creating trunk ports on the routing switches farthest away from the VM machine and work your way inward.

Gigabit Ethernet Ports

Supported Operation Modes

The gigabit Ethernet ports comply with IEEE 802.3z Draft 3.2. These ports do not currently support autonegotiation; autonegotiation will be supported in a future release. Gigabit Ethernet ports work in a forced link mode.

In addition, Accelar 1000 Series gigabit ports are designed to support only full-duplex operation.

Conversation Steering

Conversation steering or port mirroring *to* a gigabit port is not supported, but mirroring *from* a gigabit port is supported. For example, a copy of the traffic coming into a gigabit port can be sent out on a 100BASE-T port. The gigabit port must be the monitored port, not the monitoring port. Conversation steering to a gigabit port will be supported in a future release.

10/100BASE-TX Autonegotiation

The 10/100BASE-TX ports may not autonegotiate correctly with older 10/100BASE-TX equipment. In some cases, the older devices can be upgraded with new firmware or driver revisions. If an upgrade does not allow autonegotiation to correctly identify the link speed and duplex settings, these settings can be manually configured for the particular link in question using Device Manager. See Chapter 6, “Port Configuration and Graphing,” in the *Reference for the Accelar Management Software* manual. Check the Bay Networks Web site (baynetworks.com) for the latest compatibility information.

Routing Notes

DHCP Relay

Dynamic Host Configuration Protocol (DHCP) relay through the router is not supported. This feature will be supported in a future release.

Proxy ARP

Proxy Address Resolution Protocol (ARP) is not supported. This feature will be supported in a future release.

IP Multicast

Internet Group Multicast Protocol (IGMP) and Distance Vector Multicast Routing Protocol (DVMRP) are not supported. These protocols will be supported in a future release.

RIP v2 Summary Routes

Manual configuration of summary routes for Routing Information Protocol (RIP) version 2 is not supported. This feature will be supported in a future release. Summary routes learned through dynamic learning are supported.

Broadcast Format

Accelar 1000 Series routing switches support IP broadcast addresses in the “all ones” format. This format includes both the directed and local IP broadcast addresses. IP broadcast addresses with “all zeroes” are not supported.

RIP Route Redistribution

New Routing Information Protocol (RIP) global parameters allow the user to configure which routes are advertised by the routing switch through RIP.



Note: RIP route redistribution parameters are only available in Device Manager under Routing->RIP and are not documented in *Reference for the Accelar Management Software*. The runtime CLI does not allow the configuration of RIP route redistribution.

RIP route redistribution parameters are global RIP parameters. The RIP configuration for each router interface will behave in accordance with the global RIP parameters.

There are three types of RIP route redistribution:

- Redistribute OSPF to RIP—Routes learned through OSPF can be advertised through RIP.
- Redistribute Direct to RIP—Any locally connected routes are advertised through RIP. This is the normal operation mode for RIP route distribution.
- Redistribute Static to RIP—Any static routes defined will be advertised through RIP. Advertising static routes can easily cause routing problems in a network. For this reason, you must exercise great care when redistributing static routes.



Note: By default when RIP is globally enabled, no route redistribution is enabled even for direct routes. In this mode, the router will learn about new RIP routes and will advertise RIP learned routes, but it will not advertise any direct or OSPF routes. To advertise direct routes, “Redistribute Direct to RIP” must be enabled and the RIP interface configuration needs to have RIP enabled and “talk” enabled.

OSPF Areas

For reasons of manageability and performance, Bay Networks recommends defining no more than four Open Shortest Path First (OSPF) areas in any autonomous system on an Accelar routing switch.

Deleting OSPF Dynamic Routes

If a dynamic route learned through OSPF is manually deleted in the routing table, the route will not be added back to the routing table unless there is a topology change in the network. The Accelar routing switch will only recalculate the routing table if it detects a change in the contents of Link State Advertisements.

OSPF Default Summary Link Advertisements

If the routing switch is an Area Border Router (ABR) for a stub area, link state updates for the default summary Link State Advertisement (LSA) are sent every 5 seconds. Routers in the stub area will see the sequence number of the default summary LSA increasing every 5 seconds. The specification calls for a link state update to be sent every 1800 seconds. This will be fixed in a future release.

OSPF Area Range Entries

Discontiguous OSPF area range masks are not supported; that is, the binary representation of the subnet mask should be composed of a sequence of 1s followed by a sequence of 0s. For example, the mask 255.255.255.0 is valid, whereas 255.255.255.3 is invalid because the last octet of the mask is 00000011. In Device Manager, configuring a discontiguous range mask returns a -1 error message. The error message will be corrected in a future release.

Management Ports

PCMCIA Card Compatibility

For Accelar 1200 and 1250 routing switches, the XLR1299PC PCMCIA memory card is the only card approved for use in the XLR1297SF slot. Other PCMCIA flash memory cards may not be compatible with the XLR1297SF module and should not be used.

A PCMCIA flash memory card compatible with the XLR1299PC memory card requirements is the Intel Value Series 100, 4 MB, 5-volt memory card (Intel part number iMC004FLSC-10).

Remote Console Management

For remote management, you can connect a modem to the console port to gain remote access to the Boot Monitor or Runtime command line interfaces (CLIs). This section describes issues relating to configuring the modem for this mode of operation.

The console serial port is a data terminal equipment (DTE) device operating at 9600 bps, 8 data bits, no parity, and one stop bit. Because the console port expects to receive Data Set Ready (DSR) and Clear To Send (CTS) signals before transmitting, these control lines are required in the cabling. The console port does not support any inbound flow control; that is, the port does not toggle control lines to indicate an input buffer full condition.

The following modem settings should be saved to modem configuration as the power-on default:

- Auto Answer enabled
- No echo
- Quiet Mode (no return codes)

The following other relevant settings are generally modem-specific:

- Communication parameters fixed at 9600 bps, 8 data bits, no parity, and one stop bit

- Ignore Data Terminal Ready (DTR)
If the modem is set to ignore DTR, it will not hang up if DTR is lost, and it will auto-answer regardless of the DTR state. Ignore DTR is the desired setting when there is a single silicon switch fabric (SSF) module and a single modem.
If you have redundant SSF modules and modems cabled in parallel for remote management (as described in *Using the Accelar 1200/1250 Routing Switch*), the modems should NOT be configured to Ignore DTR. This precaution will ensure that the modem on the active SSF module answers when dialed.

If the modem does not properly detect the console interface settings or if flow control problems occur, you should reconfigure the modem interface characteristics. A sample modem setup sequence with comments is as follows:

1. AT&F1<cr> (restore factory defaults)
2. ATQ1E0S0=1<cr> (quiet mode, echo off, auto answer on one ring)
3. AT&W0<cr> (write to profile 0, the normal power-on default profile)

Modem Port

The modem port on the Accelar 1200 and 1250 SSF module is not supported. In a future release, this port will be used for remote Serial Line Internet Protocol (SLIP) and Point-to-Point Protocol (PPP) management. For remote access to the CLI, a modem can be connected to the console port.

Traffic Prioritization

An Accelar 1000 switch can operate in either of two modes: Best Effort mode or Priority mode. The factory default setting is Best Effort mode.



Note: Best Effort and Priority modes and the associated command line interface (CLI) commands are not documented in the manuals. Configuring high-priority traffic is described in Chapter 14, “Prioritization,” of the *Reference for the Accelar Management Software*.

The following differences exist between the Best Effort and Priority modes:

- In Best Effort mode, all traffic is treated with the same priority.
- In Priority mode, high-priority traffic flows through the switch fabric using a high priority data path; output buffers are reserved for high-priority traffic.

You can change the operating mode of the switch from the runtime CLI using the “sys set flags” command. Note that after changing this setting, you **MUST** save the configuration and reboot the switch before the change takes effect. Enable Priority mode as follows:

1. Enter the following commands at the CLI:

```
Bay> sys set flags highpriomode true
Bay> save
```

2. Reboot the routing switch to enable the configuration change to take effect.

High priority traffic can be enabled on a per-port, per-MAC address, per-VLAN, or per-flow basis.

- When a port is set to High Priority mode, all traffic received on this port is assigned a high priority.
- When a MAC address is set to High Priority mode, all traffic from the MAC address is assigned a high priority.
- When a VLAN is set to High Priority mode, frames received on any of the active ports of the VLAN are assigned a high priority.
- Finally, an IP Flow record can be used to assign high switching priority to an IP packet based on its source and destination IP addresses, protocol type, source port number and destination port number.

When a high-priority frame is sent out a trunk port, the 3-bit User Priority field in the IEEE VLAN Tag is set to 7. A normal priority frame has a User Priority of 0.

Any received tagged frames with a User Priority greater than 0 are treated as high priority.

Network Management

This section describes the latest functionality and known limitations of managing an Accelar 1000 Series Release 1.0 routing switch. Unless otherwise noted, the information is valid across all management platforms.

Multisegment Autotopology

The Bay Networks Multisegment Autotopology™ protocol is not supported; therefore, an Optivity® management console will not be able to determine the physical connectivity for an Accelar routing switch. Multisegment Autotopology will be supported in a future release.

Port Statistics Support

The following tables indicate which counters are supported in the Accelar 1000 Series. [Table 1](#) contains support information for the port interface counters; [Table 2](#) contains support information for the port RMON counters.

An “X” in a column indicates that the counter is supported and works correctly. “Not Available” indicates that the counter is not available, and “Not Applicable” means that the counter is not applicable to the specific interface.



Note: Even when a counter is supported by the Accelar routing switch, the counters available on a given network management platform will depend on the capabilities of that platform.

Table 1. Accelar 1000 Series interface counter support

Counter	10BASE-T	100BASE-TX/FX	1000BASE-SX/LX
InOctets	Not Available	Not Available	X
InPackets	X	X	X
InUnicastPkts	X	X	X
InNUnicastPkts	X	X	X
InMulticast	X	X	X
InBroadcastPkts	X	X	X
InDiscards	X	X	X
InErrors	X	X	X

Table 1. Accelar 1000 Series interface counter support (continued)

Counter	10BASE-T	100BASE-TX/FX	1000BASE-SX/LX
OutOctets	X	X	X
OutPackets	X	X	X
OutUnicastPkts	X	X	X
OutNUnicastPkts	X	X	X
OutMulticast	Not Available	Not Available	X
OutBroadcastPkts	Not Available	Not Available	X
OutDiscards	Not Available	Not Available	Not Available
OutErrors	Not Applicable	Not Applicable	Not Applicable

Table 2. Accelar 1000 Series RMON counter support

Counter	10BASE-T	100BASE-TX/FX	1000BASE-SX/LX
etherStatsDropEvents	Not Applicable	Not Applicable	Not Applicable
etherStatsOctets	Not Available	Not Available	X
etherStatsPkts	X	X	X
etherStatsBroadcastPkts	X	X	X
etherStatsMulticastPkts	X	X	X
etherStatsCRCAlignErrors	X	X	X
etherStatsUndersizePkts	X	X	X
etherStatsOversizePkts	X	X	X
etherStatsFragments	X	X	X
etherStatsJabbers	Not Available	Not Available	Not Available
etherStatsCollisions	X	X	Not Applicable
etherStatsPkts64Octets	Not Available	Not Available	X
etherStatsPkts65to127Octets	Not Available	Not Available	X
etherStatsPkts128to255Octets	Not Available	Not Available	X
etherStatsPkts256to511Octets	Not Available	Not Available	X
etherStatsPkts512to1023Octets	Not Available	Not Available	X
etherStatsPkts1024to1518Octets	Not Available	Not Available	X

Counters that are not available or not applicable will always show a 0 (zero) value when viewed with network management software.

SNMP Traps

In the version 1.0 release, the Accelar 1000 Series routing switches support the following SNMP traps:

- MIB2 traps (RFC1213)
- OSPF traps (RFC1850)
- RMON alarm traps (RFC1271)
- Enterprise traps (summarized in [Table 3](#))

Table 3. Accelar 1000 Enterprise Traps

Enterprise Trap	Description
rcCardDown	Card is up.
rcCardUp	Card is down.
rcErrorTrap	An error has occurred with error code.
rcStpNewRoot	New spanning tree root bridge exists.
rcStpTopologyChange	Spanning Tree Protocol topology is changed.
rcChasPowerSupplyDown	Power supply is down.
rcChasFanDown	Fan is down.

Device Manager

This section describes the latest functionality and known limitations of Accelar Device Manager version 1.0.1.

All Platforms

The following functionality and limitations apply to all platforms.

Loopback Tests Removed

The port loopback tests in Device Manager (described in *Reference for the Accelar Management Software*) in the Edit Port->Test Window have been removed. Port loopback tests are not supported in this release.

RMON Counter Support

Device Manager does not support the packet size distribution RMON counters. For a list of the RMON counters supported by the Accelar chassis in the MIB, refer to [Table 2](#) on [page 10](#).

Solaris and HP/UX

The following functionality applies only to Solaris and HP/UX platforms.

HP/UX Installation

Under HP/UX, the file names on the CD may appear in capital letters followed by a semicolon and the number one (;1). If this is the case, to install the software, copy the DM_V101.TAR.GZ;1 to the hard drive as dm_v101.tar.gz and install from the hard drive file. See the examples in the /DM-UNIX/README.TXT;1 file on the CD.

Context-sensitive Online Help

Under UNIX, Device Manager (DM) displays the online Help screens using the Netscape Web browser. DM assumes Netscape is in the current directory or in the path. If DM cannot find Netscape, it will return a message indicating that it could not find or execute Netscape when online Help is accessed.

Receiving Traps

To receive SNMP traps when running DM, you must execute with root user privileges. If you do not run with root privileges, DM will report a “Can't open trap port, Permission denied” error on startup, which indicates that you do not have sufficient privileges to receive traps.

Use with HP OpenView

When using Device Manager with HP OpenView (HPOV), note the following:

- HPOV 4.x can only relay SNMPV1 traps. You must ensure that trap v1 format is configured in Edit Chassis->TrapReceiver for any HPOV v4.x trap receivers.
- When launched from the command line, Device Manager will default to the community strings in dm.ini (public, private). If you launch DM within HPOV, it will use the community strings HPOV has configured for that device.

Manually Resizing Windows

If Device Manager subwindows are manually resized, DM will no longer automatically size the resized window. The subwindow will automatically size if it is closed and reopened.

Windows 95 and NT

The following information applies only to Windows® 95 and Windows NT® platforms.

Context Sensitive Online Help

Device Manager displays the online Help screens using the default Web browser. Using Netscape Navigator, online Help is context sensitive in that it brings up the correct part of the Help html file. If Microsoft Internet Explorer v4.0 or earlier is the default browser, online Help only takes you to the top of the html file.

SNMP Trap Support

Device Manager under Windows only supports SNMP v2c traps, which is the default trap type. SNMP v1 traps sent to DM are not displayed in the Trap Log.

Low Memory Errors

When Device Manager runs low on memory, you will get a “WINSNMP error #99” (Internal error) message. To work around this problem, either reduce the number of running processes or increase the Windows swap space.

Abnormal Termination Recovery

When started, Device Manager automatically launches the NetPlus/32.dll. If DM terminates abnormally, the NetPlus/32 task may still be running. You should terminate the NetPlus/32 task before restarting DM.

Intermittent “bitmap ‘gray50’ not defined” Error

An intermittent “bitmap ‘gray50’ not defined” error can occur when opening a new device in one Device Manager session. Closing and restarting the DM session will correct this behavior.

Runtime Error Changing VLAN Colors

Intermittent “Runtime Error!” messages in wish42.exe can occur when attempting to change the VLAN color after graphing data in DM. The runtime error does not cause any corruption of data. To recover from the abnormal termination, terminate the NetPlus/32 task before restarting DM.

Runtime Command Line Interface

This section describes the latest functionality and known limitations of the Accelar runtime command line interface (CLI) for Accelar Runtime Software version 1.0.0.

Loopback Tests Removed

The port loopback test commands in the runtime command line interface have been removed. Port loopback tests are not supported in this release.

Changing IP Addresses

Changing an IP address in the CLI requires that the IP address be deleted before a new address can be assigned. You delete an IP address by setting the IP address, subnet mask, and broadcast address to 0.0.0.0. For example, the first of the following commands deletes the IP address of port 1/1, and the second command assigns a new IP address of 10.10.20.1:

```
Bay> port set ip 1/1 0.0.0.0 0.0.0.0 0.0.0.0
Bay> port set ip 1/1 10.10.20.1 255.255.255.0 10.10.20.255
```