

Release Notes for DAG Software

3.3.1



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Introduction

This release note covers all changes to DAG software and firmware from the previous release, 3.2.2.

Supported Cards in 3.3.1

DAG	Link Type	Ports	PCI Type
3.7D	DS3/E3 ATM/HDLC/Frame Relay	2	PCI
3.7GP	10/ 100/1000 Copper Ethernet	2	PCI
3.7T	E1/T1 HDLC/ATM	16	PCI
3.8S	OC3c/12c ATM/PoS	2	PCIx
4.3GE	Optical Gigabit Ethernet	2	PCIx
4.3S	OC48c ATM/PoS	1	PCIx
4.5G2/G4	10/100/1000 Optical Gigabit Ethernet	2/4	PCIx
4.5Z2 *	10/100/1000 Optical Gigabit Ethernet	2	PCIx
4.5Z8 *	10/100/1000 Optical Gigabit Ethernet	4	PCIx
4.5DUP *	10/100/1000 Optical Gigabit Ethernet	2	PCIx
5.2SXA	OC192c/10G Ethernet	1	PCIx
5.2X	10G Ethernet	1	PCIx
5.4S-12	OC3/OC12 POS	2	PCIx
5.4SG-48	10/100/1000 Ethernet and OC3/OC12/OC48 POS	2	PCIx
5.4GA	10/100/1000 Ethernet	2	PCIx
5.4SA-12	OC3/OC12 POS	2	PCIx
5.4SGA-48	10/100/1000 Ethernet and OC3/OC12/OC48 POS	2	PCIx
7.1S	OC3c/OC3/OC12c/OC12 ATM/PoS/bit-HDLC	4	PCIe
7.5G2/G4	10/100/1000 Optical Gigabit Ethernet	2/4	PCIe
8.1SX	OC192c/10G Ethernet	1	PCIe
8.1X	10G Ethernet2	1	PCIe
8.2X	10G Ethernet	1	PCIe
8.2Z *	10G Ethernet	1	PCIe
8.4I *	InfiniBand	2	InfiniBand

* Only available in NinjaBox configuration

Firmware images available in 3.3.1

CARDS	Platform	FW stamps(PCI)/configs
DAG 3.7T	erf	Config-v2_6
	erf-atm	Config-v2_7
	mixed	Config-v2_2
DAG 3.7D	erf	Config-v2_3
	frace3	Config-v2_1
	kentrox	Config-v2_1
DAG 3.7GE	erf	Config-v2_5
DAG 3.8S	terf	Config-v2_10
DAG 3.8S + SC128	cp1-ipf	Config_v2_8
	aal5	Config_v2_6
DAG 4.3GE	terf	Config-v2_13
	ipf	Config_v2_6
DAG 4.3GE + SC256	cp2-ipf	Config_v2_5
DAG4.3S	terf	Config_v2_8
	ipf	Config_v2_4
DAG 4.3S + SC256	cp2-ipf	Config_v2_5
DAG 4.3S + SC128	aal5	Config_v2_3
DAG 4.5G2	dso	Config-v2_3
DAG 4.5G4	dso	Config-v2_3
DAG 4.5Z2	nb44*	Config-v2_2
DAG 4.5Z8	h1b8*	Config-v2_2
DAG 4.5DUP	erf*	Config_v2_1
DAG 5.2SXA	ipf-fbmr4t1-xge	Config_v2_1
	ipf-fbmr4t1-sdh	Config-v2_1
	ipf-sdh	Config-v2_5
	ipf-xge	Config-v2_4
DAG 5.2X	terf-hmm	Config-v2_3
DAG 5.4S-12	dsm-sdh-stm4	Config-v2_2
	raw-sdh-stm4	Config-v2_1
DAG 5.4SG-48	dsm-sdh-stm 16	Config-v2_3
	dsm-sdh-stm4	Config-v2_4
	dsm-eth	Config-v2_3
	raw-sdh-stm16	Config-v2_2
	raw-sdh-stm4	Config-v2_1
DAG 5.4GA	ipf-fbmr4t1-eth	Config-v2_1
DAG 5.4SA-12	ipf-fbmr4t1-stm4	Config-v2_1
	raw-sdh-stm4	Config-v2_1
DAG 5.4SGA-48	GE (ipf-fbmr4t1-eth)	Config-v2_2
	OC-3/12 (ipf-fbmr4t1-stm4)	Config-v2_1
	OC-48 (ipf-fbmr4t1-stm16)	Config-v2_1
	OC-3/12 (raw-sdh-stm4)	Config-v2_1
	OC-48 (raw-sdh-stm16)	Config-v2_2
DAG 7.1S	oc12-concatenated	Config-v2_7
	oc12-channelized	Config-v2_5

DAG 7.5G2	dsm	Config-v2_2
DAG 7.5G4	dsm	Config-v2_1
DAG 8.1SX	wan	Config-v2_1
	terf-tr-xge	Config-v2_3
	terf-tr-sdh	Config-v2_3
	erf-sdraw	Config-v2_1
DAG 8.1X	erf-xge	Config_v2_2
DAG 8.2X	terf-tr-hmm	Config-v2_2
DAG 8.2Z	nb88*	Config-v2_3
DAG 8.4I	erf*	Config-v2_1

* Only available in NinjaBox configuration

Firmware for cards not in this list can be obtained from previous releases.

Support

If you experience problems with any aspect of installing or using this version for Linux/FreeBSD and Windows, please contact Endace Technical Support at support@endace.com for further assistance.

Supported Operating Systems in 3.3.1

The following operating systems are supported with this release: Fedora Core, Centos, Windows Server, FreeBSD. Specifically we have tested performance against the following versions as part of this release:

- Fedora Core 6, 2.6.22, 64-bit
- Centos 5.2, 64-bit, 2.6.18-92.1.10.ELS
- Fedora Core 6, 2.6.20, 64-bit
- Fedora Core 6, 2.6.18, 64-bit
- Windows Server 2003 R2 Standard Edition Service Pack 2 (32-bit and 64-bit)
- FreeBSD 6.1, 32-bit and 64-bit

For advice on using an operating system that is substantially different from any of those specified above, please contact Endace Customer Support at support@endace.com .

Documents included in the 3.3.1 release

For details on the document changes, see the Version History at the back of each document.

Document Title	Version number	Release Date	Document status *
EDM01-01 DAG_4-3GE_Card_User_Guide.pdf	13	Nov-08	New features
EDM01-07 DAG_3-7G_Card_User_Guide.pdf	10	Nov-08	New features
EDM01-09 DAG_3-8S_Card_User_Guide.pdf	15	Nov-08	New features
EDM01-10 DAG_4-3S_Card_User_Guide.pdf	11	Nov-08	New features
EDM01-12 DAG_3-7T_Card_User_Guide.pdf	18	Nov-08	Document change
EDM01-16 DAG_3-7D_Card_User_Guide.pdf	5	Nov-08	Document change
EDM01-17 DAG_7-1S_Card_User_Guide.pdf	8	Nov-08	New features
EDM01-18 DAG_4-5_G2_G4_Card_User_Guide.pdf	13	Nov-08	Document change
EDM01-19 DAG_8-2X_Card_User_Guide.pdf	6	Nov-08	Document change
EDM01-20 DAG_5-2X_Card_User_Guide.pdf	6	Nov-08	Document change
EDM01-21 DAG_8-1SX_Card_User_Guide.pdf	10	Nov-08	New features
EDM01-23 DAG_5-2SXA_Card_User_Guide.pdf	8	Nov-08	New features
EDM01-25 DAG_8-4I_Card_User_Guide.pdf	4	Nov-08	Document change
EDM01-26 DAG_8-1X_Card_User_Guide.pdf	5	Nov-08	Document change
EDM01-27 DAG_5-4S-12_Card_User_Guide.pdf	5	Nov-08	Document change
EDM01-28 DAG_5-4SG-48_Card_User_Guide.pdf	3	Nov-08	New features
EDM01-29 DAG_5-4GA_Card_User_Guide.pdf	3	Nov-08	New features
EDM01-30 DAG_5-4SA-12_Card_User_Guide.pdf	3	Nov-08	New features
EDM01-31 DAG_5-4SGA-48_Card_User_Guide.pdf	3	Nov-08	New features
EDM01-32 DAG_7.5G2_Card_User_Guide	1	Nov-08	New Product
EDM01-33 DAG_7.5G4_Card_User_Guide	1	Nov-08	New Product
EDM02-02 Coprocessor_IP_Filter_Software_User_Manual.pdf	10	Nov-08	Document change
EDM02-03 Coprocessor_ATM_Reassembler.pdf	3	Aug-05	No change
EDM04-01 DAG_Software_Installation_Guide.pdf	13	Nov-08	Document change
EDM04-03 dagflood_User_Manual.pdf	5	Nov-08	Document change
EDM04-04 dagfwddemo_User_guide.pdf	5	Jun-08	No change
EDM04-06 daggen_User_Manual.pdf	5	Nov-08	Document change
EDM04-07 dsm_loader_User_Guide.pdf	5	Nov-08	Document change
EDM04-08 Config_Status_API_Programming_guide.pdf	7	Nov-08	Document change
EDM04-09 enCap_User_Guide.pdf	4	Oct-07	No change
EDM04-10 Data_Stream_Management_API.pdf	3	Nov-08	Document change
EDM04-11 IXP_Filtering_API.pdf	3	Nov-08	New features
EDM04-12 DAG3-7T_HDLC_Filtering.pdf	2	Oct-07	No change
EDM04-13 SAR_Host_API.pdf	0.2	Jul-07	No change
EDM04-14 dagixp_filter_loader.pdf	2	Oct-07	No change
EDM04-15 Embedded_Messaging_API.pdf	2	Oct-07	No change
EDM04-18 IMA_Host_API_Programming_Guide.pdf	2	Feb-08	No change
EDM04-19 DAG_Programming_Guide.pdf	16	Nov-08	Document change
EDM04-21 Libpcap3rdPartyApps.pdf	2	Feb-08	No change
EDM04-22 InfiniBand_Filter_Software_Guide.pdf	2	Nov-08	Document change
EDM04-25 Universal Counters API	2.1	Jul-08	No change
EDM04-26 Enhanced Packet Processing Software Guide	1	Nov-08	New document
EDM04-27 dagcat-setup Software Guide	1	Nov-08	New document
EDM04-28 filter_loader Software Guide	1	Nov-08	New document
EDM05-01 Time_Distribution_Server_User_Guide.pdf	2.2	Jun-07	No change
EDM11-01 ERF_Types.pdf	8	Jun-08	No change

No change	No change has been made to this document since the last DAG software release.
Document change	Cosmetic changes and/or additional sections have been made to this document to increase usability of the document but no new features have been added to the DAG card.
New features	New features have been added to the DAG card. The document has been updated to included information about these features.
New document	This document is new to this DAG software release.
New Product	New DAG card available in this release.

Overview of new features in 3.3.1

- Release of DAG 7.5G2 two-port, 4-lane PCIe bus compliant, packet capture card for 10/100/1000 Ethernet.
- Release of DAG 7.5G4 four-port, 4-lane PCIe bus compliant, packet capture card for 10/100/1000 Ethernet.
- DAG 8.1SX now supports WAN PHY reception.
- DAG 8.2X now supports TR-TERF (previously supported only standard TERF).
- DAG 5.4GA, DAG 5.4SA-12, DAG 5.4SGA-48 and DAG 5.2SXA now support Enhanced Packet Processing. This feature provides the card with a number of stream buffers, and the ability to duplicate, load balance or steer traffic to each of the stream buffers.
- RAW SONET capture functionality on DAG 5.4S-12, 5.4SG-48, 5.4SA-12, 5.4SGA-48, DAG 8.1SX.
- Enhancements to improve performance and reliability.

Functional errata

The reader is encouraged to download the most recent release notes from the Endace support website to obtain the most recent version of the functional errata list.

Work around's or fixes for all items in this section are pending.

All DAG Cards

- Only 32-bit PCI-Bus addresses are supported, which restricts the total allocated memory to 4GB in both 32-bit and 64-bit machines. Additional restrictions may apply depending upon the operating system and kernel.
- If you remotely connect to a Windows machine in which a DAG card is installed via SSH, any error messages resulting from DAGCONFIG commands may be displayed at the bottom of the screen rather than on the row directly below the DAGCONFIG command. The correct error messages will be displayed but the placement could be a little irregular.

DAG 3.7G

- When using the hpg5 motherboard, issuing a force kill dagfwdemo will lock the stream in windows. Reloading the image followed by a disable then enable of the driver (or reboot of the machine) will unlock the stream. This issue only impacts the feature demonstration mode.

DAG 3.7T

- HDLC filtering not fully functional. Work around pending.

DAG 3.8S

- dagld does not work on configured DAG3.8S + AAL5 Co-Processor. After the Co-Processor has been loaded with dagld, running dagld a second time *does not* change the running coprocessor image. The work around is to use dagreset before running dagld a second time.

DAG 4.5G2/G4

- Only copper modules using Marvell-alaska chip based transceivers are supported for 4.5G2 and 4.5G4. Work around for other transceivers is pending.
- In rare cases, packets longer than 900 bytes may be corrupted when the device is in 10Mb Ethernet mode. This corruption occurs infrequently, and is specific to the equipment connected.

DAG 5.4 - all cards: 5.4S-12, 5.4SG-48, 5.4GA, 5.4SA-12, 5.4SGA-48

- LCTR field in the ERF header does not calculate correctly when in bypass mode.
- Each time dagconfig is run on the DAG card, the card receives a few packets with the Rx error flag set. This occurs in both SONET and Ethernet modes. The workaround is to clear the data path by doing an initial capture to flush the error packets. Subsequent captures will not exhibit this behavior.
- In rare cases, one channel of a card may stop receiving traffic after a line configuration command has been executed. The dagconfig options affected are: master/slave, fcl/nofcl, eql/noeql, oc3, oc12, scramble/noscrumble. The traffic is still counted, but is not passed through to the host. The workaround for this issue is to reload the firmware with either the 'dagreset' or 'dagrom -p' command, depending on whether the firmware loaded is in the factory half or the user half.
- When operating in Co-Processor bypass mode, the packet burst handling capability is reduced.
- When operating in Co-Processor bypass mode, the in-band loss counter is not updated. The stream loss counter displayed by dagconfig is still updated.

DAG 5.25XA (10GE mode)

- In rare cases, captured packets may be truncated or concatenated when the device is receiving data at high line rates. The likelihood of this occurring increases with either very short packets, or very long packets.

DAG 7.1S

- DAG 7.1S TX is not supported.
- When operating on Windows OS, switching to user half image may result in a Blue screen error with motherboards based on Intel E7520 chipsets.
- When operating on Windows OS, switching to the image loaded in the User Half will not work properly if you have multiple cards and if you choose to disable/enable the driver for any single card.

DAG 7.5G2, DAG 7.5G4

- In rare cases, packets longer than 900 bytes may be corrupted when the device is in 10Mb Ethernet mode. This corruption occurs infrequently, and is specific to the equipment connected.
- When operating on Windows OS, switching to user half image does not work properly with mother boards based on Intel E7520 chipsets. For DAG 7.5G2 and DAG 7.5G4 cards, the workaround is to specify which image should be loaded at power up time – please check User Guide for details.
- When operating on Windows OS, switching to the image loaded in the User Half will not work properly if you have multiple cards and if you choose to disable/enable the driver for any single card.
- The Config & Status API reports only the first user image as `user_fw` attribute in the `card_info` component and the second and third user images are not reported by Config & Status API.
- When operating cards in machines running FreeBSD Operating Systems, switching between user and factory images is only possible at power-up time. The commands `dagrom -p` and `dagreset` do not work. Note though that the only image provided in this release is the factory image.
- When operating cards in machine running FreeBSD Operating Systems, the Dagclock reset command is required after `dagreset` or `dagrom -p` on reboot to sync the DAG clock.

DAG 8.1X

- Ensure the 8.1X is configured into “fcl” mode. See *EDM01-26v3 DAG 8.1X Card User Guide* section *getting a link up signal* for further details.
- The current image does not support PCIe 2.0 slots.

DAG 8.1SX

- When the card is operating in a PCIe 2.0 slot in a motherboard based on the Intel 5400 (Seaburg) chipset you may experience problems when transmitting. The workaround is to install the card in a PCIe 1.0 slot. This issue has only been seen with the 5400 chipset.
- In rare cases, captured packets may be truncated or concatenated when the device is receiving data at high line rates. The likelihood of this occurring increases with either very short packets, or very long packets.
- When configured in 10GE, WAN systems and placed into 'crcstrip' mode, the card will receive packets with invalid MAC headers incorrectly. The packets received will have a wire length of 14 bytes.
- When operating on Windows OS, switching to user half image may result in a Blue screen error with motherboards based on Intel E7520 chipsets.
- When operating on Windows OS, switching to the image loaded in the User Half will not work properly if you have multiple cards and if you choose to disable/enable the driver for any single card.
- When operating cards in machine running FreeBSD Operating Systems, the Dagclock reset command is required after dagreset or dagrom -p on reboot to sync the DAG clock.
- DAG 8.1SX cards installed in computers based on Intel 5000 chipsets with MSI (Message Signaled Interrupts) enabled will fail to generate the appropriate interrupts. The work around is to use Standard interrupts. MSI interrupts should function as expected in systems based on other chipsets, thus allowing these systems to take advantage of the higher performance and lower latency inherent in the use of MSI interrupts on PCIe machines. Note that the use of MSI functionality is disabled by default.
- With DAG 8.1SX cards after reloading the firmware with a command like "dagrom -p", a capture program such as dagsnap or dagbits may fail to capture correctly. Subsequently an "Input/output error" will be reported. This occurs approximately 1/50 times the firmware is reloaded when operating in Ethernet and 1/250 for SONET-based systems. If dagbits or dagsnap fail to capture correctly, the recommendation is to reload the firmware using "dagrom -p" or similar function.

DAG 8.4I

- rx_packet_error_latch gives incorrect values for dagconfig -u command.
- The current image does not support PCIe 2.0 slots.

Documentation errata

Items in this section are informational. They will be added to upcoming releases of the relevant documentation.

Configuration and Status API Programming Guide

- Update to 3.2.1.

Changes to Firmware in 3.3.1

DAG 4.3E

- New image: terf - This image has the added ability to turn the transmit laser on and off.

DAG 5.4SG-48

- New image dsm-sdh-stm4. Changes include:
 - An issue has been fixed where the card may have (in rare cases) stopped receiving data after a line configuration command was executed.
- This image also fixes an issue where two packets with invalid wirelengths were received after card reconfiguration
- New image dsm-sdh-stm16
 - An issue has been fixed where the card may have (in rare cases) stopped receiving data after a line configuration command was executed.

DAG 8.1SX

- New image terf-tr-sdh. Changes include:
 - A motherboard compatibility issue with Intel 5000 chipset based motherboards has been resolved. The resolved issue could result in reboots or a failure to transmit frames. This fix also improves compatibility for PCI Express Generation 2 systems, where the card would not boot correctly on certain systems.
 - An issue where packets could be concatenated at high line rates has been resolved. Previously, when packets were received with very small interpacket gaps, packets would occasionally be merged.
- New image terf-tr-xge . Changes include:
 - A motherboard compatibility issue with Intel 5000 chipset based motherboards has been resolved. The resolved issue could result in reboots or a failure to transmit frames. This fix also improves compatibility for PCI Express Generation 2 systems, where the card would not boot correctly on certain systems.
 - Fixed an issue where the device would transmit one packet when the FPGA was reloaded.

DAG 5.2SXA

- New image ipf-fbmr-4t1-xge:
 - This image replaces the ipf-xge image present in previous releases, maintaining all existing standard IP Filter functionality with the addition of the Enhanced Packet Processing feature. This feature provides the card with four stream buffers, and the ability to duplicate, load balance or steer traffic to each of these buffers. Full backwards compatibility is maintained at a DAG API level.
- New image ipf-fbmr-4t1-sdh:
 - This image replaces the ipf-sdh image present in previous releases, maintaining all existing standard IP Filter functionality with the addition of the Enhanced Packet Processing feature. This feature provides the card with four stream buffers, and the ability to duplicate, load balance or steer traffic to each of these buffers. Full backwards compatibility is maintained at a DAG API level.

DAG 5.4GA

- New image ipf-fbmr-4t1-eth:
 - This image replaces the ipf-eth image present in previous releases, maintaining all existing standard IP Filter functionality with the addition of the Enhanced Packet Processing feature. This feature provides the card with four stream buffers, and the ability to duplicate, load balance or steer traffic to each of these buffers. Full backwards compatibility is maintained at a DAG API level

DAG 5.4SA-12

- New image ipf-fbmr4t1-stm4:
 - This image replaces the ipf-sdh-stm4 image present in previous releases, maintaining all existing standard IP Filter functionality with the addition of the Enhanced Packet Processing feature. This feature provides the card with four stream buffers, and the ability to duplicate, load balance or steer traffic to each of these buffers. Full backwards compatibility is maintained at a DAG API level
- New image raw-sdh-stm4
 - This new image contains functionality to capture RAW SONET frames at OC-3/OC-12 line rates. Note that this image does not contain filtering functionality

DAG 5.4S-12

- New image raw-sdh-stm4
 - This new image contains functionality to capture RAW SONET frames at OC-3/OC-12 line rates

DAG 5.4SG-48

- New image raw-sdh-stm4
 - This new image contains functionality to capture RAW SONET frames at OC-3/OC-12 line rates
- New image raw-sdh-stm16
 - This new image contains functionality to capture RAW SONET frames at OC-48 line rates

DAG 5.4SGA-48

- New image ipf-fbmr4t1-stm4:
 - This image replaces the ipf-sdh-stm4 image present in previous releases, maintaining all existing standard IP Filter functionality with the addition of the Enhanced Packet Processing feature. This feature provides the card with four stream buffers, and the ability to duplicate, load balance or steer traffic to each of these buffers. Full backwards compatibility is maintained at a DAG API level
- New image ipf-fbmr4t1-stm16:
 - This image replaces the ipf-sdh-stm16 image present in previous releases, maintaining all existing standard IP Filter functionality with the addition of the Enhanced Packet Processing feature. This feature provides the card with four stream buffers, and the ability to duplicate, load balance or steer traffic to each of these buffers. Full backwards compatibility is maintained at a DAG API level
- New image ipf-fbmr4t1-eth:
 - This image replaces the ipf-eth image present in previous releases, maintaining all existing standard IP Filter functionality with the addition of the Enhanced Packet Processing feature. This feature provides the card with four stream buffers, and the ability to duplicate, load balance or steer traffic to each of these stream buffers. Full backwards compatibility is maintained at a DAG API level

- New image raw-sdh-stm4
 - This new image contains functionality to capture RAW SONET frames at OC-3/OC-12 line rates. Note that this image does not contain filtering functionality
- New image raw-sdh-stm16
 - This new image contains functionality to capture RAW SONET frames at OC-48 line rates. Note that this image does not contain filtering functionality

DAG 7.5G2

- New image dsm:
 - This image contains both standard DSM and Timed Release (TR) functionality for the new DAG 7.5G2 dual-port PCI Express DAG Card
 - An issue present in the Pre-Production release of this image has been resolved which could result in transmit issues with some motherboards (e.g. Intel 5000-series and Intel e7520 motherboards)

DAG 7.5G4

- New image dsm:
 - This image contains both standard DSM and Timed Release (TR) functionality for the new DAG 7.5G4 quad-port PCI Express DAG Card

DAG 8.1SX

- New image wan:
 - This image contains standard receive functionality for 10G Ethernet running in WAN mode
- New image terf-tr-sdh
 - Fixed a reset issue that could result in issues with transmit

DAG 8.2X

- New image terf-tr-hmm:
 - Fixed an issue where a 'thermal overload' message was displayed during loading of the driver
 - Added TR_TERF.

Changes to Software in 3.3.1

DAG Tools/ C&S API

Type of change Fixes and enhancements
Affected Sonet cards

- Modified the attribute c2_path_label for printing its value in hex string.

DAG Tools / C&S API

Type of change Fixes and enhancements
Affected DAG 3.7T

- Added 3 Config & Status API attributes (ais_counter, frm_counter, crc_counter) and modified the extended statistics printing in dagconfig DAG Tools / Config & Status API

DAG Tools

Type of change Fixes and enhancements
Affected DAG 3.7T

- Added head and tail tokens to dagconfig tool to control the timestamping.

DAG Tools

Type of change Fixes and enhancements
Affected DAG 7.5G2, DAG 7.5G4, DAG 9.1X

- Windows support for DAGROM using ROM version, version 2

C&S API

Type of change Fixes and enhancements
Affected All DAG Cards

- Added board_rev attribute and pci_device_code attributes to 'card_info' component for the board revision attributes

C&S API

Type of change Fixes and enhancements
Affected All DAG Cards

- Added board revision information into the lm sensor component to support new hardware versions of cards with different sensor wiring.

DAG Tools

Type of change Fixes and enhancements
Affected DAGCONVERT

- Modified the tool to ignore pad records (ERF type 48) when converting from an ERF file or live capture to a pcap file.

DAG Tools

Type of change Feature

Affected DAG 5.4Ga, DAG 5.4SA-12. DAG 5.4SGA-48 & DAG 5.2SXA

- Creating a new tool, dagcat-setup, to configure CAT module to support Enhanced Packet Processing.
- Added a script file to configure Enhanced Packet Processor in predefined modes in scripts directory.

DAG Tools

Type of change Fix

Affected DAGFLOOD

- Fixed issues to ensure that when -c0 command line option used, no packets were transmitted before exit
- Added verification for the command line option -burst-max (-1) which makes sure that the value is 8-byte aligned

DAG Driver

Type of change Fixes and Enhancements

Affected Fedora Core OS

- Replaced most longer delays from blocking to non-blocking to prevent kernel exceptions while swapping the firmware halves when using more recent kernel versions (2.6.24 onwards)
- disabled interrupts and added short delay before swapping the firmware images.(PCI-Express specific)

DAG TOOLS

Type of change Fixes and Enhancements

Affected DAG 7.1S

- Fixed dagld issue in programming pp images (AMCC reset was needed to be done using dagbut). Now it is handled within dagld.

DAG APIs, C&S API

Type of change Fixes and Enhancements

Affected All DAG Cards

- Added example programs using DAG API and C&S API

DAG TOOLS

Type of change Fixes and enhancements

Affected DAGCONVERT

- Modified dagconvert to support capture the traffic from a particular stream
- Added support for maximum number of output files
- Support termination of DAGCONVERT using Ctrl+C

DAG Driver

Type of change Enhancement

Affected Dag 7.5G2, DAG 7.5G4, DAG 8.1SX DAG 8.4i

- Updated the FreeBSD driver to support these cards

DAG TOOLS

Type of change Fixes and enhancements

Affected Limitation

- dag_attach_stream_protection() is working like dag_atash_stream. Function is called without any read protection flag. This feature will require proper implementation on Windows.

DAG TOOLS/C&S API

Type of change Fixes and enhancements

Affected Dagld, dagrom

- Modified image name protection for different cards following new image name conventions
- Added image name verification against the board revision

DAG TOOLS

Type of change Fixes and enhancements

Affected DAGCONVERT

- Added support for raw link ERF type

DAG Tools

Type of change Enhancement

Affected DAG 7.1S, DAG 7.5G2, DAG 7.5G4, DAG 8.1SX, DAG 8.1X, DAG 8.2X, DAG 8.2Z

- A new command has been introduced allowing customers to use MSI interrupts to improve performance and reduce latency on PCIe machines. In cases of interrupt sharing, this will allow a single interrupt per DAG card. Note that the use of MSI functionality is disabled by default. Refer to the Software Installation Guide included with this release for further details

DAG TOOLS

Type of change Enhancement

Affected DAG 5.4GA, 5.4SA-12, 5.4SGA-48. 5.2SXA

- Added dagbits plugin that enables SONET frame descrambling on the raw link ERF type and performs BIP error verification.

DAG TOOLS

Type of change Fix

Affected DAG 7.1S

- Added support for tokens (rxtx, oc1, oc48 and oc192) in dagconfig for DAG7.1S

DAG TOOLS / DAG API

Type of change Fix

Affected All DAG Cards

- Fixed issues where DAG name parsing for command line tools would not allow values greater than dag99
- Issues reporting IO memory address for dagnames dag10 and greater resolved

DAG TOOLS / DAG API

Type of change Fix
Affected DAG 7.1S

- Added software support for ROM serial number firmware module

DAG API

Type of change Enhancement
Affected All DAG Cards

- Using page aligned memory allocation for internal DAG structures to improve capture and transmit performance

DAG DRIVER

Type of change Fix
Affected DAG 3.8S

- Fixed DAG 3.8S driver entry that caused install errors on 64-bit Windows Operating Systems

DAG TOOLS / C&S API

Type of change Fix
Affected DAG 5.2SXA

- Fixed issues related to incorrect hash values being assigned to incoming packets when hash_encoding_from_ipf is enabled

DAG TOOLS

Type of change Fix / Enhancement
Affected All DAG cards

- Resolved issues which resulted in incomplete records when dagsnap was terminated while capturing data

N.B: Python (a high level programming language) is used internally by Endace for purposes such as generating test scripts. A small amount of Python software is included with the release software, but this is by no means a complete Python code base. Customer use of this Python software is neither recommended nor supported.