Release Note for Napatech Link™ Software Driver Version 3.13.5

Release date	2019-08-21
Description	This release note applies to driver package nt_driver_3gd-linux-3.13.5

Release history from version 3.13.3 to 3.13.5

New Features

No new features

Resolved Issues

ID	Customer tracking number	Summary	Found in version	Resolved in version
42905	42880 (Support)	"Sensor not found" Syslog errors may occur when running supportinfo tool	3.13.1	3.13.5
42875	42867 (Support)	Rpmbuild fails due to error prone sed command in install.sh	3.12.1	3.13.5

Known issues

ID	Customer tracking number	Summary	Found in version
42936		The link diode extinguishes when the port is disabled as it should, but lights up again when the module is unplugged and reinserted with the port still disabled. No link is up. But the diode lights up as if there is. Status is read correct from software.	3.13.3
42719	42701 (Support)	ntservice hanging if specifying more than 128 tx host buffers in ntservice.ini	3.9.1
42653	42616 (fix)	When using host loopback on NT200A01 without any NIMs plugged in, it is not possible to get link on a QSFP28-LR4 NIM inserted afterwards unless FEC has been disabled (for SR modules) in the ini file **Workaround:** If QSFP28-LR module is to be used then either plug it in before start-up of the system or set DisableFEC=TRUE in ntsevice.ini	3.11.1
42652	42616 (fix)	FEC cannot be changed dynamically on NT200A01, if traffic has been applied. Hence, it is not possible to dynamically swap between SR and LR QSFP28 if unless FEC has been disabled for SR modules in the ini file **Workaround:** If QSFP28-LR module is to be used then either plug it in before start-up of the system or set DisableFEC=TRUE in ntsevice.ini	3.11.1
42257		Dynamic hostbuffers are not supported by Intel PAC A10 accelerators. Therefore NTAPI Inline features are not supported by Intel PAC A10 accelerators. However, applications using DPDK will support Inline for Intel PAC A10 accelerators.	3.9.1

ID	Customer tracking number	Summary	Found in version
42256		The performance when using 1 hostbuffer and small packets (64-65 bytes length) is limited to approximately 95% of the theoretical performance. In all other scenarios full performance (100%) can be expected.	3.9.1
41150		The Automatic over-temperature shutdown is not implemented yet on the Intel® Programmable Acceleration Card.	3.9.0
38699		Using NT_NetRxGet* or NT_NetRxGetMult* first time on newly created or reconfigured streams can lead to initial package drops when the system is configured with large hostbuffers or many client applications. This will only be triggered on newly created and reconfigured streams. **Workaround:** If packet loss is observed, to get clean statistics no traffic should be received on connected ports while streams are being started.	3.7.5
38364		The performance of host based transmission may be degraded in the following scenario: 1. Local retransmit is taking place at full line rate on a subset of the ports of the adapter. 2. In parallel with 1., host based transmission is taking place on a separate port of the adapter (i.e. the combined host and local retransmit functionality is not used.)	3.7.1
32765		When using the GlobalSync feature, link down/up events causes the port to enter 'unknown' state	2.9.4
14086		If NUMA node zero is offline and /opt/napatech3/config/ntservice.ini does not exist, the driver cannot start because it fails to allocate memory for the default host buffer set-up. **Workaround:** Use an existing ntservice.ini or specify the host buffer set-up on an online NUMA node: '/opt/napatech3/bin/start.sh -o adapter0.BusId=0000:04:00.0 -o adapter0.AdapterType=NT40E3_4_PTP -o adapter0.HostBuffersRx=[4,32,1] -o adapter0.HostBuffersTx=[2,16,1]'. BusId and AdapterType are only required if there are multiple adapters in the server; the BusId can be obtained with 'lspci | grep Napa'.	2.8.5
10740		When using a Cisco DAC pluggable, link is detected even if the other end of the cable is unplugged.	2.7.0
9189	9137 (Support)	The Linux kernel v3.8->v3.12 has a bug in the NUMA balancing code which was introduced in v3.8. See https://bugzilla.kernel.org/show_bug.cgi?id=60734 The issue causes high execution delays on cores running on other than NUMA 0 if the feature is enabled. To work around the problem, disable the NUMA balancing by adding "numa_balancing=disable" to the kernel command line. The Linux kernel 3.13 received significant NUMA updates which fixes this issue. The 3.10 kernel in RHEL 7, CentOS 7 and Oracle Linux 7 (not the 3.8.13 uek kernel) contains a fix for this, thus the work around is not needed.	0.1.1
8719		Setting TimeSyncTimeJumpThreshold for OS timesync to values > 0, will enable the time jump feature and results in a jump threshold of 1 second.	2.4.1
4324		3GD requires at least gcc 4.0 to build and at least glibc 2.5 to run.	1.1.0

Notes

Operating systems

The Napatech driver version applies to these operating systems:

- Linux 3.0 -> 3.19 (64-bit)

- Linux 4.0 -> 4.20 (64-bit)

  The software has been qualified on: CentOS 7, Ubuntu 16.04LTS and Fedora 29

Hardware and FPGA image compatibility

Hardware	4GA FPGA images
NT20E3-2-PTP	200-9501-02-16, 200-9501-04-04, 200-9501-06-06, 200-9501-08-06, 200-9501-09-08, 200-9501-10-07, 200-9501-15-02, 200-9501-17-02, 200-9501-18-07
NT40E3-4-PTP	200-9502-02-16, 200-9502-04-04, 200-9502-06-06, 200-9502-06-07, 200-9502-08-06, 200-9502-08-07, 200-9502-08-08, 200-9502-09-08, 200-9502-10-07
NT80E3-2-PTP	200-9503-02-16, 200-9503-04-04, 200-9503-06-05, 200-9503-08-06, 200-9503-08-07, 200-9503-08-08, 200-9503-09-08, 200-9503-10-07, 200-9503-10-09, 200-9503-15-02, 200-9503-17-02, 200-9503-18-07, 200-9503-20-04, 200-9503-08-07, 200-9519-10-05, 200-9519-10-07, 200-9519-15-02, 200-9519-17-02, 200-9519-18-07, 200-8005-10-01, 200-8005-15-02, 200-8005-17-02
NT200A01	200-9508-05-08, 200-9508-05-17, 200-9508-06-06, 200-9508-07-06, 200-9508-07-07, 200-9515-09-08, 200-9515-10-07, 200-9515-15-02, 200-9515-18-09, 200-9515-20-04, 200-9516-09-08, 200-9516-10-07, 200-9516-15-05, 200-9516-18-09, 200-9516-20-04, 200-9531-20-12, 200-8002-09-01, 200-8002-09-02, 200-8002-09-04, 200-8002-10-02, 200-8002-15-02, 200-9512-07-02, 200-9512-08-08, 200-9512-08-09, 200-9512-09-08, 200-9512-10-07, 200-9512-15-02, 200-9512-18-07, 200-9512-20-04, 200-9522-15-03, 200-9522-18-07, 200-9522-20-04, 200-8001-08-00, 200-8001-08-01, 200-8003-09-01, 200-8003-09-03, 200-8003-10-02, 200-8003-15-02, 200-8004-10-03, 200-8004-15-02, 200-8006-15-03
NT40A01-4x1	200-9500-06-06, 200-9500-06-07, 200-9500-08-06, 200-9500-09-08, 200-9500-10-07, 200-9500-15-02, 200-9500-18-07
NT100E3-1-PTP	200-9504-01-12, 200-9505-02-16, 200-9505-04-04, 200-9505-06-05, 200-9505-08-06, 200-9505-09-08, 200-9505-10-08, 200-9505-10-09, 200-9505-15-02, 200-9505-18-07, 200-9505-20-05
NT40A01	200-9517-09-08
INTEL-A10	200-7000-12-00, 200-7000-12-02, 200-7000-12-06, 200-7001-12-00, 200-7001-12-03, 200-7001-12-06
NT200A02	200-9521-18-11, 200-9521-20-04, 200-9526-18-10, 200-9526-20-04, 200-9533-20-04, 200-9533-20-11

Hardware	3GA FPGA images
NT4E	200-9015-42-08, 200-9015-42-13, 200-9015-42-14
NT4E-STD	200-9017-42-09, 200-9017-42-10
NT4E-INL	200-9115-42-13

Hardware	3GA FPGA images
NT4E-STD-INL	200-9117-42-09, 200-9117-42-13
NT4E2-4-PTP	200-9226-46-12, 200-9226-46-13, 200-9226-48-05, 200-9226-50-03, 200-9226-50-04, 200-9226-51-03, 200-9226-51-04
NT20E2	200-9220-44-10, 200-9220-44-12, 200-9220-45-06, 200-9220-46-09, 200-9220-47-03, 200-9220-50-03, 200-9220-50-04, 200-9220-50-05
NT20E2-PTP	200-9227-50-03, 200-9227-51-03, 200-9227-51-04
NT20E3-2-	200-9233-52-13, 200-9233-53-01

PTP	
NT40E3-4-PTP	200-9232-50-04, 200-9232-51-04, 200-9232-51-07, 200-9232-52-13, 200-9232-53-01
NT40E2-1	200-9222-52-05
NT40E2-4	200-9221-44-13, 200-9221-50-04

Microcontroller compatibility

- AVR-firmware v1.x
- AVR-firmware v2.x
- AVR-firmware v3.x

Test status

Complete test plan

Documentation

See the Documentation Portal, WebHelp or DN-0449 for reference documentation on Napatech Software Suite.

Release note generated at

2019-08-22