Bug Fixes History

Ref #	Issue Description
3991098	Description: Thermal sensors sometimes show abnormal temperature readings.
	Keywords: Monitoring; sensor
	Reported in version: 4.5.0
4146553	Description: Fixed the PMD crash while dumping a rule with invalid rule pointer. Check the validity of the pointer.
	Keywords: Invalid rule pointer; dumping rule
	Reported in version: 4.5.0
4127420	Description: When calling `…_is_equal_pci_addr()` with a PCIe address of BDF format (i.e., without the domain component), the assumed domain is `0000` (e.g., if the input PCIe address is `03:00.0`, the input is treated as `0000:03:00.0`).
	Keywords: BDF
	Reported in version: 4.5.3
3901193	Description: Host PCIe driver hangs when hot plugging a device due to SF creation and error flow handling failure.
	Keywords: Subfunction; hot-plug
	Reported in version: 4.5.0
3901190	Description: Virtio-net may see TX timeout on specific queues.
	Keywords: Emulated devices
	Reported in version: 4.6.0
3899526	Description: On BlueField-2, the OOB may not get an IP address due to the interface being down.
	Keywords: OOB; IP
	Reported in version: 3.9.2
3894575	Description: Kernel updated to include the latest security fix for CVE-2023-52340.
	Keywords: Security; vulnerability
	Reported in version: 4.5.0

Ref #	Issue Description
3996822	Description: Added support flash-less booting to make up for GPIO degradation mitigation
	Keyword: Boot; degradation
	Reported in version: 4.5.0
3894907	Description: eMMC clock should be disabled at runtime when using NIC mode.
	Keyword: eMMC
	Reported in version: 4.5.0
3682873	Description: BlueField-3 FT test shows abnormal sensor temperature readings .
	Keyword: Thermal
	Reported in version: 4.5.0
3992563	Description: V2F sensors hang after boot.
	Keyword: Thermal; hang
	Reported in version: 4.5.0
3774088	Description: When enrolling a certificate to the UEFI DB, a failure message `ERROR: Unsupported file type!` is displayed when the DB was full.
	Keyword: SNAP; UEFI
	Fixed in version: 4.5.1
3739089	Description: Ipmitool from DPU OS toward the DPU BMC is failing to open `/dev/ipmi0` or `/dev/ipmi1/0` error.
	Keyword: Ipmitool
	Fixed in version: 4.5.1
3730478	Description: In secure boot user mode, self-signed db certs, and self-signed dbx certs cannot be enrolled via Redfish.
	Keyword: Secure boot
	Fixed in version: 4.5.1
3762951	Description: When the I^2C EEPROM is no longer available (e.g., EOF), data loss (e.g., MFG data loss, etc.) is not optimal for the system to function properly.
	Keyword: EEPROM

Ref #	Issue Description
	Fixed in version: 4.5.1
3571285	Description: Intermittent UEFI/grub exception after many power-cycles: ``` Call Stack: Synchronous Exception at 0xF4B72E0C ERR[UEFI]: PC=0xF4B72E0C ERR[UEFI]: PC=0xF4B72E70 ERR[UEFI]: PC=0xF4B73570 ERR[UEFI]: PC=0xF4B74904 ERR[UEFI]: PC=0xF4F04444 ERR[UEFI]: PC=0xF4F044F8 ERR[UEFI]: PC=0xF4F05160 ERR[UEFI]: PC=0xF4F02030 ERR[UEFI]: PC=0xFDFC3A38 (0xFDFB0000+0x13A38) [1] DxeCore.dll ERR[UEFI]: PC=0xF56E3594 (0xF56D4000+0xF594) [2] BdsDxe.dll ERR[UEFI]: PC=0xF56F1FFC (0xF56D4000+0x1DFFC) [2] BdsDxe.dll ERR[UEFI]: PC=0xF56F40D4 (0xF56D4000+0x200D4) [2] BdsDxe.dll ERR[UEFI]: PC=0xFDFC6E50 (0xFDFB0000+0x16E50) [3] DxeCore.dll ERR[UEFI]: PC=0x880092E0 ERR[UEFI]: PC=0x8800947C ERR[UEFI]: X0=0x0 X1=0xF4B78FC3 X2=0xE X3=0x0 ERR[UEFI]: X4=0x0 X5=0xFFFFFFFFFFFFFFF8 X6=0x0 X7=0xFFFFFFF5 ERR[UEFI]: X8=0xF4B79480 X9=0x2 X10=0xFFFFFFFFFFFFFFFF X11=0xFFFFDC00 ```
	Keyword: Security
	Fixed in version: 4.5.0

Ref #	Issue Description
3599839	Description: On a reboot following BFB install, the error message "Boot Image update completed, Status: Volume Corrupt" is observed. The error is non-functional and may be safely ignored.
	Keyword: Software provisioning; EFI capsule update; eMMC boot partitions
	Fixed in version: 4.5.0
3556795	Description: The first uplink representor interface may not be renamed to `p0` from `ethX`.
	Keyword: Representors
	Fixed in version: 4.5.0
3629875	Description: Fixed base address of static ICM.
	Keyword: ICM
	Fixed in version: 4.5.0
3365363	Description: On BlueField-3, when booting virtio-net emulation device using a GRUB2 bootloader, the bootloader may attempt to close and re-open the virtio-net device. This can result in unexpected behavior and possible system failure to boot.
	Keywords: BlueField-3; virtio-net; UEFI
	Fixed in version: 4.5.0
3373849	Description: Different OVS-based packages can include their own systemd services which prevents `/sbin/mlnx_bf_configure` from identifying the right one.
	Keywords: OVS; systemd
	Fixed in version: 4.5.0
3605332	Description: A dmseg is printed due to the OVS bridge interface being configured DOWN by default.
	Keyword: OVS
	Fixed in version: 4.2.1
3479040	Description: For non-LSO data, a max chain of 4 descriptors is posted onto the send queue resulting in a partial packet going out on the wire.
	Keyword: Send; LSO
	Fixed in version: 4.2.1

Ref #	Issue Description
3549785	Description: NVMe and mlx5_core drivers fail during BFB installation. As a result, Anolis OS cannot be installed on the SSD and the `mlxfwreset` command does not work during Anolis BFB installation.
	Keyword: Linux; NVMe; BFB installation
	Fixed in version: 4.2.1
3393316	Description: When LSO is enabled, if the header and data appear in the same fragment, the following warning is given from tcpdump: `truncated-ip - 9 bytes missing`
	Keyword: Virtio-net; large send offload
	Fixed in version: 4.2.1
3554128	Description: "`dmidecode`" output does not match "`ipmitool fru print`" output.
	Keywords: IPMI; print
	Fixed in version: 4.2.1
3508018	Description: Failure to ssh to Arm via 1GbE OOB interface is experienced after performing warm reboot on the DPU.
	Keywords: SSH; reboot
	Fixed in version: 4.2.0
3451539	Description: BSP build number (fourth digit in version number) does not appear in UEFI menu.
	Keywords: UEFI; software
	Fixed in version: 4.2.0
3259805	Description: Following many power cycles on the BlueField DPU, the virtio-net controller may fail to start with the error `failed to register epoll` in the log.
	Keywords: Virtio-net; power cycle; epoll
	Fixed in version: 4.2.0
3266180	Description: Enabled reset on MMC to enhance recovery on error.
	Keywords: MMC; reset

Ref #	Issue Description
	Fixed in version: 4.2.0
3448217	Description: The PKA engine is not working on CentOS 7.6 due to multiple OpenSSL versions (1.0.2k 1.1.1k) being installed and the library loader not selecting the correct version of the openssl library.
	Keywords: PKA; OpenSSL
	Fixed in version: 4.2.0
3448228	Description: On virtio-net devices with LSO (large send offload) enabled, bogus packets may be captured on the SF representor when running heavy `iperf` traffic.
	Keywords: Virtio-net; iperf
	Fixed in version: 4.2.0
3452583	Description: OpenSSL is not working with PKA engine on CentOS 7.6 with 4.23 5.4 5.10 kernels due to multiple versions of OpenSSL(1.0.2k and 1.1.1k) are installed.
	Keywords: OpenSSL; PKA
	Fixed in version: 4.2.0
3455873	Description: 699140280000 OPN is not supported.
	Keywords: SKU; support
	Fixed in version: 4.2.0
3519341	Description: Populate the vGIC maintenance interrupt number in MADT to avoid harmless.
	Keywords: Error
	Fixed in version: 4.2.0
3522652	Description: The timer frequency is measured using the c0 fmon feature causing new kernels to complain if CNTFRQ_EL0 has a different value on different cores.
	Keywords: Timer frequency
	Fixed in version: 4.2.0
3531965	Description: Memory info displayed via `dmidecode` is not correct for memory sizes 32G and above.
	Keywords: Memory; dmidecode

Ref #	Issue Description
	Fixed in version: 4.2.0
3362181	Description: A customized BFB with an older kernel does not support bond speed above 200Gb/s.
	Keywords: Bond; LAG; speed
	Fixed in version: 4.2.0
3177569	Description: DCBX configuration may not take effect.
	Keywords: DCBX; QoS; lldpad
	Fixed in version: 4.2.0
2824859	Description: Hotplug/unplug of virtio-net devices during host shutdown/bootup may result in failure to do plug/unplug.
	Keywords: Virtio-net, hotplug
	Fixed in version: 4.2.0
3252083	Description: Assert errors may be observed in the RShim log after reset/reboot. These errors are harmless and may be ignored.
	Keywords: RShim; log; error
	Fixed in version: 4.0.3
3240060	Description: Hotplug of a modern virtio-net device is not supported when `VIRTIO_EMULATION_HOTPLUG_TRANS` is `TRUE` from mlxconfig.
	Keywords: Virtio-net; hotplug; legacy
	Fixed in version: 4.0.3
3240182	Description: Virtio-net full emulation is not supported in CentOS 8.2 with inbox-kernel 4.18.0-193.el8.aarch64.
	Keywords: Virtio-net; CentOS
	Fixed in version: 4.0.3
3151884	Description: If secure boot is enabled, the following error message is observed while installing Ubuntu on the DPU: `ERROR: need to use capsule in secure boot mode`. This message is harmless and may be safely ignored.
	Keywords: Error message; installation
	Fixed in version: 3.9.3

Ref #	Issue Description
2793005	Description: When Arm reboots or crashes after sending a virtio-net unplug request, the hotplugged devices may still be present after Arm recovers. The host, however, will not see those devices.
	Keywords: Virtio-net; hotplug
	Fixed in version: 3.9.3
3107227	Description: BlueField with secured BFB fails to boot up if the `PART_SCHEME` field is set in `bf.cfg` during installation.
	Keywords: Installation; bf.cfg
	Fixed in version: 3.9.2
3109270	Description: If the RShim service is running on an external host over the PCIe interface then, in very rare cases, a soft reset of the BlueField can cause a poisoned completion to be returned to the host. The host may treat this as a fatal error and crash.
	Keywords: RShim; ATF
	Fixed in version: 3.9.2
2790928	Description: Virtio-net-controller recovery may not work for a hot-plugged device because the system assigns a BDF (string identifier) of 0 for the hot-plugged device, which is an invalid value.
	Keywords: Virtio-net; hotplug; recovery
	Fixed in version: 3.9.0
2780819	Description: Eye-opening is not supported on 25GbE integrated-BMC BlueField-2 DPU.
	Keywords: Firmware, eye-opening
	Fixed in version: 3.9.0
2876447	Description: Virtio full emulation is not supported by NVIDIA® BlueField®-2 multi-host cards.
	Keywords: Virtio full emulation; multi-host
	Fixed in version: 3.9.0
2855485	Description: After BFB installation, Linux crash may occur with `efi_call_rts` messages in the call trace which can be seen from the UART console.

Ref #	Issue Description
	Keywords: Linux crash; `efi_call_rts`
	Fixed in version: 3.9.0
2901514	Description: Relaxed ordering is not working properly on virtual functions.
	Keywords: MLNX_OFED; relaxed ordering; VF
	Fixed in version: 3.9.0
2852086	Description: On rare occasions, the UEFI variables in UVPS EEPROM are wiped out which hangs the boot process at the UEFI menu.
	Keywords: UEFI; hang
	Fixed in version: 3.9.0
2934828	Description: PCIe device address to RDMA device name mapping on x86 host may change after the driver restarts in Arm.
	Keywords: RDMA; Arm; driver
	Fixed in version: 3.9.0
-	Description: RShim driver does not work when the host is in secure boot mode.
	Keywords: RShim; Secure Boot
	Fixed in version: 3.9.0
2787308	Description: At rare occasions d uring Arm reset o n BMC-integrated DPUs , the DPU will send "PCIe Completion" marked as poisoned. Some servers treat that as fatal and may hang.
	Keywords: Arm reset; BMC integrated
	Fixed in version: 3.9.0
2585607	Description: Pushing the BFB image fails occasionally with a "bad magic number" error message showing up in the console.
	Keywords: BFB push; installation
	Fixed in version: 3.9.0
2802943	Description: SLD detection may not function properly.
	Keywords: Firmware
	Fixed in version: 3.9.0

Ref #	Issue Description
2580945	Description: External host reboot may also reboot the Arm cores if the DPU was configured using mlxconfig.
	Keywords: Non-volatile configuration; Arm; reboot
	Fixed in version: 3.9.0
2899740	Description: BlueField-2 may sometimes go to PXE boot instead of Linux after installation.
	Keywords: Installation; PXE
	Fixed in version: 3.8.5
2870143	Description: Some DPUs may get stuck at GRUB menu when booting due to the GRUB configuration getting corrupted when board is powered down before the configuration is synced to memory.
	Keywords: GRUB; memory
	Fixed in version: 3.8.5
2873700	Description: The available RShim logging buffer may not have enough space to hold the whole register dump which may cause buffer wraparound.
	Keywords: RShim; logging
	Fixed in version: 3.8.5
2801891	Description: IPMI EMU service reports cable link as down when it is actually up.
	Keywords: IPMI EMU
	Fixed in version: 3.8.0
2779861	Description: Virtio-net controller does not work with devices other than `mlx5_0/1`.
	Keywords: Virtio-net controller
	Fixed in version: 3.8.0
2801378	Description: No parameter validation is done for feature bits when performing hotplug.
	Keywords: Virtio-net; hotplug
	Fixed in version: 3.8.0
2802917	Description: When secure boot is enabled, PXE boot may not work.

Ref #	Issue Description
	Keywords: Secure boot; PXE
	Fixed in version: 3.8.0
2827413	Description: Updating a BFB could fail due to congestion.
	Keywords: Installation; congestion
	Fixed in version: 3.8.0
2829876	Description: For virtio-net device, modifying the number of queues does not update the number of MSIX.
	Keywords: Virtio-net; queues
	Fixed in version: 3.8.0
2597790	Description: A "double free" error is seen when using the "curl" utility. This happens only when OpenSSL is configured to use a dynamic engine (e.g. Bluefield PKA engine).
	Keywords: OpenSSL; curl
	Fixed in version: 3.8.0
2853295	Description: UEFI secure boot enables the kernel lockdown feature which blocks access by mstmcra.
	Keywords: Secure boot
	Fixed in version: 3.8.0
2854472	Description: Virtio-net controller may fail to start after power cycle.
	Keywords: Virtio-net controller
	Fixed in version: 3.8.0
2854995	Description: Memory consumed for a representor exceeds what is necessary making scaling to 504 SF's not possible.
	Keywords: Memory
	Fixed in version: 3.8.0
2856652	Description: Modifying VF bits yields an error.
	Keywords: Virtio-net controller
	Fixed in version: 3.8.0
2859066	Description: Arm hangs when user is thrown to livefish by FW (e.g. secure boot).

Ref #	Issue Description
	Keywords: Arm; livefish
	Fixed in version: 3.8.0
2866082	Description: The current installation flow requires multiple resets after booting the self-install BFB due to the watchdog being armed after capsule update.
	Keywords: Reset; installation
	Fixed in version: 3.8.0
2866537	Description: Power-off of BlueField shows up as a panic which is then stored in the RShim log and carried into the BERT table in the next boot which is misleading to the user.
	Keywords: RShim; log; panic
	Fixed in version: 3.8.0
2868944	Description: Various errors related to the UPVS store running out of space are observed.
	Keywords: UPVS; errors
	Fixed in version: 3.8.0
2754798	Description: `oob_net0` cannot receive traffic after a network restart.
	Keywords: `oob_net0`
	Fixed in version: 3.8.0
2691175	Description: Up to 31 hot-plugged virtio-net devices are supported even if `PCI_SWITCH_EMULATION_NUM_PORT=32`. Host may hang if it hot plugs 32 devices.
	Keywords: Virtio-net; hotplug
	Fixed in version: 3.8.0
2597973	Description: Working with CentOS 7.6, if SF network interfaces are statically configured, the following parameters should be set. `NM_CONTROLLED="no"` `DEVTIMEOUT=30` For example:

```
# cat /etc/sysconfig/network-scripts/ifcfg-p0m0
NAME=p0m0
```

Ref #	Issue Description
| | ```
DEVICE=p0m0
NM_CONTROLLED="no"
PEERDNS="yes"
ONBOOT="yes"
BOOTPROTO="static"
IPADDR=12.212.10.29
BROADCAST=12.212.255.255
NETMASK=255.255.0.0
NETWORK=12.212.0.0
TYPE=Ethernet
DEVTIMEOUT=30
``` |
	Keywords: CentOS; subfunctions; static configuration
	Fixed in version: 3.7.0
2581534	Description: When shared RQ mode is enabled and offloads are disabled, running multiple UDP connections from multiple interfaces can lead to packet drops.
	Keywords: Offload; shared RQ
	Fixed in version: 3.7.0
2581621	Description: When OVS-DPDK and LAG are configured, the kernel driver drops the LACP packet when working in shared RQ mode.
	Keywords: OVS-DPDK; LAG; LACP; shared RQ
	Fixed in version: 3.7.0
2601094	Description: The gpio-mlxbf2 and mlxbf-gige drivers are not supported on 4.14 kernel.
	Keywords: Drivers; kernel
	Fixed in version: 3.7.0
2584427	Description: Virtio-net-controller does not function properly after changing uplink representor MTU.
	Keywords: Virtio-net controller; MTU
	Fixed in version: 3.7.0
2438392	Description: VXLAN with IPsec crypto offload does not work.

Ref #	Issue Description
	Keywords: VXLAN; IPsec crypto
	Fixed in version: 3.7.0
2406401	Description: Address Translation Services is not supported in BlueField-2 step A1 devices. Enabling ATS can cause server hang.
	Keywords: ATS
	Fixed in version: 3.7.0
2402531	Description: PHYless reset on BlueField-2 devices may cause the device to disappear.
	Keywords: PHY; firmware reset
	Fixed in version: 3.7.0
2400381	Description: When working with strongSwan 5.9.0bf, running `ip xfrm state show` returns partial information as to the offload parameters, not showing "`mode full`".
	Keywords: strongSwan; ip xfrm; IPsec
	Fixed in version: 3.7.0
2392604	Description: Server crashes after configuring PCI_SWITCH_EMULATION_NUM_PORT to a value higher than the number of PCIe lanes the server supports.
	Keywords: Server; hang
	Fixed in version: 3.7.0
2293791	Description: Loading/reloading NVMe after enabling VirtIO fails with a PCI bar memory mapping error.
	Keywords: VirtIO; NVMe
	Fixed in version: 3.7.0
2245983	Description: When working with OVS in the kernel and using Connection Tracking, up to 500,000 flows may be offloaded.
	Keywords: DPU; Connection Tracking
	Fixed in version: 3.7.0
1945513	Description: If the Linux OS running on the host connected to the BlueField DPU has a kernel version lower then 4.14, MLNX_OFED package should be installed on the host.

Ref #	Issue Description
	Keywords: Host OS
	Fixed in version: 3.7.0
1900203	Description: During heavy traffic, ARP reply from the other tunnel endpoint may be dropped. If no ARP entry exists when flows are offloaded, they remain stuck on the slow path.
	Workaround: Set a static ARP entry at the BlueField Arm to VXLAN tunnel endpoints.
	Keywords: ARP; Static; VXLAN; Tunnel; Endpoint
	Fixed in version: 3.7.0
2082985	Description: During boot, the system enters systemctl emergency mode due a corrupt root file system.
	Keywords: Boot
	Fixed in version: 3.6.0.11699
2278833	Description: Creating a bond via NetworkManager and restarting the driver (openibd restart) results in no pf0hpf and bond creation failure.
	Keywords: Bond; LAG; network manager; driver reload
	Fixed in version: 3.6.0.11699
2286596	Description: Only up to 62 host virtual functions are currently supported.
	Keywords: DPU; SR-IOV
	Fixed in version: 3.6.0.11699
2397932	Description: Before changing SR-IOV mode or reloading the mlx5 drivers on IPsec-enabled systems, make sure all IPsec configurations are cleared by issuing the command `ip x s f && ip x p f`.
	Keywords: IPsec; SR-IOV; driver
	Fixed in version: 3.6.0.11699
2405039	Description: In Ubuntu, during or after a reboot of the Arm, manually, or as part of a firmware reset, the network devices may not transition to switchdev mode. No device representors would be created (pf0hpf, pf1hpf, etc). Driver loading on the host will timeout after 120 seconds.
	Keywords: Ubuntu; reboot; representors; switchdev
	Fixed in version: 3.6.0.11699

Ref #	Issue Description
2403019	Description: EEPROM storage for UEFI variables may run out of space and cause various issues such as an inability to push new BFB (due to timeout) or exception when trying to enter UEFI boot menu.
	Keywords: BFB install; timeout; EEPROM UEFI Variable; UVPS
	Fixed in version: 3.6.0.11699
2458040	Description: When using OpenSSL on BlueField platforms where Crypto support is disabled, the following errors may be encountered: `PKA_ENGINE: PKA instance is invalid` `PKA_ENGINE: failed to retrieve valid instance` This happens due to OpenSSL configuration being linked to use PKA hardware, but that hardware is not available since crypto support is disabled on these platforms.
	Keywords: PKA; Crypto
	Fixed in version: 3.6.0.11699
2456947	Description: All NVMe emulation counters (Ctrl, SQ, Namespace) return "0" when queried.
	Keywords: Emulated devices; NVMe
	Fixed in version: 3.6.0.11699
2411542	Description: Multi-APP QoS is not supported when LAG is configured.
	Keywords: Multi-APP QoS; LAG
	Fixed in version: 3.6.0.11699
2394130	Description: When creating a large number of VirtIO VFs, hung task call traces may be seen in the dmesg.
	Keywords: VirtIO; call traces; hang
	Fixed in version: 3.5.1.11601
2398050	Description: Only up to 60 virtio-net emulated virtual functions are supported if LAG is enabled.
	Keywords: Virtio-net; LAG
	Fixed in version: 3.5.1.11601
2256134	Description: On rare occasions, rebooting the BlueField DPU may result in traffic failure from the x86 host.
	Keywords: Host; Arm

Ref #	Issue Description
	Fixed in version: 3.5.1.11601
2400121	Description: When emulated PCIe switch is enabled, and more than 8 PFs are enabled, the BIOS boot process might halt.
	Keywords: Emulated PCIe switch
	Fixed in version: 3.5.0.11563
2082985	Description: During boot, the system enters systemctl emergency mode due a corrupt root file system.
	Keywords: Boot
	Fixed in version: 3.5.0.11563
2249187	Description: With the OCP card connecting to multiple hosts, one of the hosts could have the RShim PF exposed and probed by the RShim driver.
	Keywords: RShim; multi-host
	Fixed in version: 3.5.0.11563
2363650	Description: When moving to separate mode on the DPU, the OVS bridge remains and no ping is transmitted between the Arm cores and the remote server.
	Keywords: SmartNIC; operation modes
	Fixed in version: 3.5.0.11563
2394226	Description: Pushing the BFB image v3.5 with a WinOF-2 version older than 2.60 can cause a crash on the host side.
	Keywords: Windows; RShim
	Fixed in version: 3.5.0.11563

Notice

Trademarks