

HPE Superdome Flex I/O Service Pack

Bundle VERSION: 2020.05(A)

ISO file: bp-SuperdomeFlex-2020-05-02-00.iso

Smart Update Manager (SUM):

Version: **8.5.0**

DESCRIPTION:

The HPE Superdome Flex I/O Service Pack contains an ISO image including I/O firmware smart components, drivers (if required) with their utilities for the HPE Superdome Flex Server as well as DCD (Data Collection Daemon) for Windows and firmware for PMM (HPE Persistent Memory). It also contains the SUM (Smart Update Manager) application.

UPDATE RECOMMENDATION: Critical

Note: See FIXES section for important fixes.

This bundle includes IO components for the following Operating Systems:

- Red Hat Enterprise Linux 8.0, 7.7, 7.6
- SUSE Linux Enterprise Server 12 SP3, 12 SP4, 15, 15 SP1
- Windows Server 2019, 2016
- VMware 6.5 U2/U3, 6.7 U3 (firmware components only)

Note:

- This bundle should be used for offline firmware updates on newer OS'es not listed above. For these newer OS'es, also use in distro drivers.
- For older OS'es not listed above, update to a later OS version or continue using the latest applicable I/O Service Pack for that OS.
- VMware customers should use I/O firmware from this I/O Service Pack 2020.05 along with the latest VMware driver update on [vibsdepot](https://vibsdepot.com). See also VMware white paper at <http://www.hpe.com/support/superdome-flex-vmware>

SUPERSEDES:

Version: 2019.09

FIXES:

- **Critical Fix** in Smart RAID firmware version 2.93 (for details, see [Customer Bulletin a00097210en_us](#)):
 - Prevents a potential data inconsistency from occurring with version 1.98 during initial configuration and operation of a volume configured in RAID 5/6/50/60 Fault Tolerant Mode.

- **Critical:** HPE SN1100Q 16Gb 2P FC HBA and SN1600Q 32Gb 2P FC HBA Firmware version 1.72.03 and later addresses an extremely rare issue where the Operating system would halt and potentially compromise filesystem data integrity. See Customer Bulletin [a00094722](#) for details.
- **Critical:** SAS SSD Firmware version HPD7 (included in this IO service pack) addresses an issue where SAS SSD models EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR used in external HPE disk enclosures (for example HPE D3000 Enclosures) would cause a drive failure after 40,000 hours of operation. For details, refer to Customer Bulletin [a00097382](#).
- HPE MegaRaID Storage Administrator no longer fails to identify 9361-4i controllers on systems running Windows Server 2019
- On SLES 12 SP4, SLES 15 and RHEL 7.6, SN1100Q 16Gb 2P FC HBA driver version 10.01.00.52 no longer reports lots of errors “Max:1024 LUNS supported” if a LUN number is set to greater than 1024.
- During offline deployment on a Superdome Flex with 8 or more socket, selecting the power button displayed after accepting the EULA and then selecting shutdown no longer leads to MSMI hold.

ENHANCEMENTS:

- Updated the PMM Firmware to version 1.2.0.5435 (part of new Intel microcode in firmware 3.25.46)
- P4800 NVMe firmware version HPK3 now provides the ability to change Completion Timeout values
- Includes IPMI BT Windows driver version 1.2.0.2 which only allows installation on Superdome Flex systems running WS2016/2019
- Added iSCSI software initiator based boot support with HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter (872726-B21) on SLES 12 SP3, SP4 , SLES 15 SP1 and supported RHEL releases
- Added support for online update on systems running RHEL 8.0 and SLES 15 SP1

May 15th, 2020 update:

- Rebuilt the ISO to address an issue where SUM baseline inventory was taking too long

May 22nd, 2020 update:

- Added in the table the supported HPE IB HDR/Ethernet 200Gb 1P 940QSFP56 (P06154-H21 or –B21) adapter

COMPATIBILITY/INTEROPERABILITY:

- HPE recommends using the HPE Superdome Flex server firmware version 3.25.46 or later with the Superdome Flex I/O Service Pack version 2020.05.

- I/O Service Pack version 2020.05(A) contains the same component bits as version 2020.05
- See also the Superdome Flex support matrix: [HPE Superdome Flex Release Sets](#).
- For SLES 15, kernel version 4.12.14-25.3 or later is required.
- Windows 2019 March update (KB4489899 OS Build 11763.379) or later is strongly recommended as it addresses Hyper-V installation failures related to SN1100Q.
- Customers with older OS'es should remain with prior IO Service Pack versions. HPE strongly recommends updating to the latest OS version.

HPE Superdome Flex I/O Service Pack image content:

- **I/O firmware components and associated utilities:**
 - **DCD 2.3.0.0 for Windows** (see DCD Release Notes [here](#))
 - **I/O firmware Components and associated utilities:**
- **Note:**
 - Dependencies are listed in the section below the table
 - For Linux (SLES 12 SP3 & SP4, SLES 15 SP0 & SP1, RHEL 7.6, RHEL 7.7 & RHEL 8.0) and Windows Server (2016 or 2019), the Superdome Flex IO Service Pack supports online and offline Server SUM deployment.
 - For Linux (SLES 12 SP5, RHEL 7.8, RHEL 8.1 and future versions), the Superdome Flex IO Service Pack supports offline Server SUM deployment only.
 - For Oracle Linux and VMware, components must be installed using the offline update (see the Installation section for details).
 - Not all cards are supported with all OS'es at this time. For details, refer to the HPE Superdome Flex Quick Specs at <https://h20195.www2.hpe.com/v2/GetDocument.aspx?docname=a00026242enw>

Type	Title	Version	Filename
	HPE SN1100Q 16Gb 2P FC HBA (P9D94A) HPE SN1600Q 32Gb 2P FC HBA (P9M76A)		
Firmware Linux	HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86_64)	Version 2019.12.02 Package: 01.73.08 Firmware: 8.08.230 UEFI: 7.02	firmware-fc-qlogic-2019.12.02-1.3.x86_64.rpm Note: Critical update (do not use prior version 8.08.220) (See Dependencies 1.1)
Utilities Linux	HPE Fibre Channel Enablement Kit for Linux – Qlogic	6.0.0.0-11(b)	HP-CNA-FC-hpqlgc-Enablement-Kit-6.0.0.0-11.noarch.rpm
Utilities Linux	Fibreutils for HPE Storage Fibre Channel Host Bus Adapters for Linux (x86_64)	4.1-1 (b)	fibreutils-4.1-1_sles.x86_64.rpm fibreutils-4.1-1_rhel.x86_64.rpm
Driver Linux	Red Hat Enterprise Linux 7 Server FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters	10.01.00.52.07.6-k1 (b)	kmod-qlgc-qla2xxx-10.01.00.52.07.6_k1-1.rhel7u6.x86_64.rpm kmod-qlgc-qla2xxx-10.01.00.52.07.6_k1-1.rhel7u7.x86_64.rpm
Driver Linux	Red Hat Enterprise Linux 8 Server FC Driver Kit for HPE QLogic Host Bus Adapters and mezzanine Host Bus Adapters	10.01.00.52.08.0-k1 (b)	kmod-qlgc-qla2xxx-10.01.00.52.08.0_k1-1.rhel8u0.x86_64.rpm
Driver Linux	SUSE Linux Enterprise Server 12 SP3 FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters	8.08.00.08.12.3_k12	qlgc-qla2xxx-kmp-default-8.00.08.12.3.0_k12_k4.4.73_5-1.sles12sp3.x86_64.rpm
Driver Linux	SUSE Linux Enterprise Server 12 FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters	10.01.00.52.12.4-k1 (b)	qlgc-qla2xxx-kmp-default-10.01.00.52.12.4_k1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm
Driver Linux	SUSE Linux Enterprise Server 15 FC Driver Kit for HPE QLogic and mezzanine Host Bus Adapters	10.01.00.52.15.0-k1	qlgc-qla2xxx-kmp-default-10.01.00.52.15.0_k1_k4.12.14_23-1.sles15sp0.x86_64.rpm
Firmware Windows	HPE Firmware Online Flash for QLogic Fibre Channel Host Bus Adapters - Windows 2012/2012R2/2016 (x86_64)	Version: 2019.12.02 Package 1.73.08 Firmware 8.08.230 UEFI 7.02	cp042008.exe Critical update (do not use prior firmware version 8.08.220)
Driver Windows	HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Windows Server 2016	9.3.3.20 (b)	cp039717.exe

Driver Windows	HPE Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver for Windows Server 2019	9.3.3.20 (b)	cp039718.exe
	HPE SN1200E 16Gb 2P FC HBA (Q0L14A) HPE SN1600E 32Gb 2P FC HBA (Q0L12A)		
Firmware Linux	HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters - Linux (x64)	Version: 2019.12.01 Firmware 12.4.270.5 UEFI: 12.4.153.0	firmware-fc-emulex-2019.12.01-1.34.x86_64.rpm
Utilities Linux	HPE Fibre Channel Enablement Kit – Emulex	12.4.256.0	HP-CNA-FC-Emulex-Enablement-Kit-12.4.256.0-1.*.x86_64.rpm
Drivers Linux	Red Hat Enterprise Linux 7 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters	12.4.270.3	kmod-elx-lpfc-12.4.270.3-1.rhel7u7.x86_64.rpm
Drivers Linux	Red Hat Enterprise Linux 8 Server Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters	12.4.270.3	kmod-elx-lpfc-12.4.270.3-1.rhel8u0.x86_64.rpm
Drivers Linux	SUSE Linux Enterprise Server 12 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters	12.4.270.3	elx-lpfc-kmp-default-12.4.270.3_k4.12.14_94.41-1.sles12sp4.x86_64.rpm
Drivers Linux	SUSE Linux Enterprise Server 15 Fibre Channel Driver Kit for HPE Emulex Host Bus Adapters and mezzanine Host Bus Adapters	12.4.270.3	elx-lpfc-kmp-default-12.4.270.3_k4.12.14_195-1.sles15sp1.x86_64.rpm
Firmware Windows	HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for Windows 2012/2012 R2/2016/2019 x64	Version: 2019.12.01 Firmware 12.4.270.5 UEFI: 12.4.153.0	cp039575.exe
Driver Windows	HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Windows 2012, Windows 2012R2 and Windows 2016	12.4.243.4	cp039579.exe

Driver Windows	HPE Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver for Windows 2019	12.4.243.4	cp039578.exe
	HPE 9300-8e 12Gb 8p Ext SAS Controller (H7B70A)		
Firmware Linux	Online ROM Flash Component for Linux (x64) - LSI SAS 9300-8e	FW: 16.0.1.0 UEFI: 16.00.00.00	firmware-lsisas-16.0.1.0-1.1.x86_64.rpm
Firmware Windows	Online ROM Flash Component for Windows (x64) - LSI SAS 9300-8e	FW: 16.0.1.0 UEFI: 16.00.00.00	N/A (offline only)
	HPE 9361-4i RAID Controller (Q2N11A)		
Firmware Linux	HPE Firmware Flash for Broadcom MegaRAID	Package: 24.21.0-0067 FW: 4.680.00-8392 UEFI: 0x06180203	firmware-megaraid-24.21.0_0067-1.1.x86_64.rpm
Utilities Linux	StorCLI Linux 64-bit	1.25.12	storcli-1.25.12-1.noarch.rpm
Drivers Linux	HPE Smart Array P824i-p MR controller Driver for 64-bit Red Hat Enterprise Linux 7	07.706.05.00-14	kmod-megaraid_sas-07.706.05.00-14.rhel7u5.x86_64.rpm kmod-megaraid_sas-07.706.05.00-14.rhel7u6.x86_64.rpm
Drivers Linux	HPE Smart Array P824i-p MR controller Driver for 64-bit SUSE LINUX Enterprise Server 12	07.706.05.00-14	lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles12sp3.x86_64.rpm
Drivers Linux	HPE Smart Array P824i-p MR controller Driver for 64-bit SUSE LINUX Enterprise Server 15	07.706.05.00-14	lsi-megaraid_sas-kmp-default-07.706.05.00-14.sles15sp0.x86_64.rpm
Drivers Linux	HPE Smart Array P824i-p MR controller Driver for 64-bit SUSE LINUX Enterprise Server 15 SP1	07.710.06.00	lsi-megaraid_sas-kmp-default-07.710.06.00-1.sles15sp1.x86_64.rpm
Firmware Windows	Online ROM Flash Component for Windows (x64) - HPE MegaRAID 9361-4i	Package: 24.21.0-0067 Firmware: 4.680.00-8392 UEFI: (0x06180203)	cp038069.exe
Utilities Windows	HPE MegaRAID Storage Administrator StorCLI for Windows 64-bit	1.25.12.0	cp041267.exe
Driver Windows	HPE Smart Array P824i-p MR 64-bit controller driver for	6.714.8.0	cp041155.exe

	Microsoft Windows 2016 edition.		
Driver Windows	HPE Smart Array P824i-p MR 64-bit controller driver for Microsoft Windows 2016 edition.	6.714.18.0	cp041161.exe
	HPE 3154-8e (Q6M15A), 3162-8i/e RAID Controller (R0Y99A)		
Firmware Linux	HPE Firmware Flash for Microsemi SmartRAID	FW: 2.93 UEFI: 1.3.5.2	firmware-smartraid-2.93-1.1.x86_64.rpm
Utilities Linux	HPE Smart Storage Administrator (HPE SSA) CLI for Linux 64-bit	4.15.6.0	ssa-4.15-6.0.x86_64.rpm
Utilities Linux	HPE Smart Storage Administrator (HPE SSA) for Linux 64-bit	4.15.6.0	ssacli-4.15-6.0.x86_64.rpm
Utilities Linux	HPE Smart Storage Administrator Diagnostic Utility (HPE SSADU) CLI for Linux 64-bit	4.15.6.0	ssaducli-4.15-6.0.x86_64.rpm
Drivers Linux	HPE Superdome Flex SmartRAID 3100 (64-bit) Driver for Red Hat Enterprise Linux 7 (64-bit)	1.2.10-025	kmod-smartpqi-1.2.4-065.rhel7u5.x86_64.rpm kmod-smartpqi-1.2.10-025.rhel7u6.x86_64.rpm kmod-smartpqi-1.2.10-025.rhel7u7.x86_64.rpm
Drivers Linux	HPE Superdome Flex SmartRAID 3100 (64-bit) Driver for Red Hat Enterprise Linux 8 (64-bit)	1.2.10-025.rhel8u0	smartpqi-kmp-default-1.2.10-025.rhel8u0.x86_64.rpm
Drivers Linux	HPE Superdome Flex SmartRAID 3100 (64-bit) Driver for SUSE LINUX Enterprise Server 12 (64-bit)	1.2.10-025	smartpqi-kmp-default-1.2.10-025.sles12sp3.x86_64.rpm smartpqi-kmp-default-1.2.10-025.sles12sp4.x86_64.rpm
Drivers Linux	HPE Superdome Flex SmartRAID 3100 (64-bit) Driver for SUSE LINUX Enterprise Server 15 (64-bit)	1.2.10-025	smartpqi-kmp-default-1.2.10-025.sles15sp0.x86_64.rpm smartpqi-kmp-default-1.2.10-025.sles15sp1.x86_64.rpm
Firmware Windows	Online ROM Flash Component for Windows (x64) - HPE Smart Array 3154-8e	FW: 2.93 UEFI: 1.3.5.2	cp043706.exe

Utilities Windows	HPE Smart Storage Administrator (HPE SSA) for Windows 64-bit	4.15.6.0	cp043147.exe
Utilities Windows	HPE Smart Storage Administrator (HPE SSA) CLI for Windows 64-bit	4.15.6.0	cp043145.exe
Utilities Windows	HPE Smart Storage Administrator Diagnostic Utility (HPE SSADU) CLI for Windows 64-bit	4.15.6.0	cp043146.exe
Driver Windows	HPE Smart Array Gen10 Controller Driver for Windows Server 2012 R2, Windows Server 2016 and Windows Server 2019	106.166.0.1022	cp043084.exe
	HPE IB EDR/Ethernet 100Gb 2P 840 QSFP28 Adapter (825111-H21 or -B21) HPE IB EDR/Ethernet 100Gb 2P 841 QSFP28 Adapter (872726-H21 or -B21)		
Firmware Linux	Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 devices on Linux x86_64 platform	Package: 1.0.7 Firmware 16.26.1040	firmware-hca-mellanox-vpi-connectx4-1.0.7-1.1.x86_64.rpm
Drivers Linux	HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 7 (x86_64)	4.7	mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.rhel7u6.x86_64.rpm mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.rhel7u7.x86_64.rpm
Drivers Linux	HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 8 (x86_64)	4.7	mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.rhel8u0.x86_64.rpm
Drivers Linux	HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 12 (AMD64/EM64T)	4.7	mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.sles12sp4.x86_64.rpm
Drivers Linux	HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for	4.7	mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.sles15sp0.x86_64.rpm

	SUSE LINUX Enterprise Server 15 SPO (AMD64/EM64T)		
Firmware Windows	Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 devices on Windows x86_64 platform	Package: 1.0.0.6 Firmware 16.26.1040	cp039803.exe
Drivers Windows	HPE Mellanox CX4LX Driver for Windows Server 2016	2.30.21713.0	cp039898.exe
Drivers Windows	HPE Mellanox CX4LX and CX5 Driver for Windows Server 2019	2.30.21713.0	cp039899.exe
	HPE IB HDR/Ethernet 200Gb 1P 940QSFP56 (P06154-H21 or -B21) HPE IB HDR100/Ethernet 100Gb 1P 940QSFP56 (P06250-H21 or -B21) HPE IB HDR100/Ethernet 100Gb 2P 940QSFP56 (P06251-H21 or -B21)		
Firmware Linux	Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on Linux x86_64 platform	1.0.2 FW: 20.26.4012 PSID 1P: HPE0000000035 PSID 1P: HPE0000000036	firmware-hca-mellanox-vpi-connectx6-mft-1.0.2-1.1.x86_64.rpm
	HPE 100Gb 1p OP101 QSFP28 x16 Adapter (829335-B21)		
Firmware Linux	HPE Intel OPA UEFI ROM and TMM (Thermal Management Module) Firmware for HPE 100Gb 1-Port OP101 QSFP28 x8 OPA Adapter		Firmware not included in I/O Service Pack. (See Note 2).
Driver Linux	HPE Intel OPA Adapter Driver for Linux		Driver not included in I/O Service Pack. (See Note 2).
	HPE Ethernet 10/25Gb 2P 640 SFP28 Adapter (817753-B21) HPE Ethernet 100Gb 1-port		

	842QSFP28 Adapter (874253-B21)		
Firmware Linux	Online Firmware Upgrade Utility (Linux x86_64) for HPE Mellanox Ethernet only adapters	Package: 1.0.11 FW (640SFP): 14.26.1040 FW (842QSFP): 16.26.1040	firmware-nic-mellanox-ethernet-only-1.0.11-1.1.x86_64.rpm
Drivers Linux	HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for Red Hat Enterprise Linux 7 (x86_64)	4.7	mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.rhel7u6.x86_64.rpm
Drivers Linux	HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 12 (AMD64/EM64T)	4.7	mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.sles12sp4.x86_64.rpm
Drivers Linux	HPE Mellanox RoCE (RDMA over Converged Ethernet) Driver for SUSE LINUX Enterprise Server 15 SPO (AMD64/EM64T)	4.7	mlnx-ofa_kernel-4.7-OFED.4.7.1.0.0.1.g1c4bf42.sles15sp0.x86_64.rpm
Firmware Windows	Online Firmware Upgrade Utility (Windows x64) for HPE Mellanox Ethernet only adapters	Package: 1.0.11 FW (640SFP): 14.26.1040 FW (842QSFP): 16.26.1040	cp040050.exe
Drivers Windows	HPE Mellanox CX4LX Driver for Windows Server 2016	2.30.21713.0	cp039898.exe
Drivers Windows	HPE Mellanox CX4LX Driver for Windows Server 2019	2.30.21713.0	cp039899.exe
	HPE Ethernet 1Gb 4-port 331T Adapter (647594-B21)		
Firmware Linux	HPE Broadcom NX1 Online Firmware Upgrade Utility for Linux x86_64	Version: 2.24.2 Combo image: v20.14.57 Boot Code Version - 1.47 UEFI Version - 20.14.19 PXE Version - 20.14.0 NCSI Version-1.5.01 CCM Version-214.0.166.0	firmware-nic-broadcom-2.24.2-1.1.x86_64.rpm (See Dependencies 1.2)
Drivers Linux	HPE Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 7 x86_64	3.138a	kmod-tg3-3.138a-1.rhel7u7.x86_64.rpm kmod-tg3-3.138a-1.rhel7u6.x86_64.rpm

Drivers Linux	HPE Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 12 x86_64	3.138a	tg3-kmp-default-3.138a_k4.12.14_94.41-2.sles12sp4.x86_64.rpm tg3-kmp-tg3-kmp-default-3.138a_k4.4.73_5-2.sles12sp3.x86_64.rpm
Drivers Linux	HPE Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 15	3.138a	tg3-kmp-default-3.138a_k4.12.14_23-2.sles15.x86_64.rpm tg3-kmp-default-3.138a_k4.12.14_195-2.sles15sp1.x86_64.rpm
Firmware Windows	HPE Broadcom NX1 Online Firmware Upgrade Utility for Windows Server x64 Editions	Version: 5.2.0.0 Combo image: v20.14.57 Boot Code Version - 1.46 UEFI Version - 20.14.19 PXE Version - 20.14.0 NCSI Version-1.5.01 CCM Version-214.0.166.0	cp040814.exe
Driver Windows	HPE Broadcom NX1 1Gb Driver for Windows Server x64 Editions	214.0.0.0 (C)	cp040545.exe
	HPE Ethernet 10/25Gb 2P 631SFP28 Adapter (817718-B21)		
Firmware Linux	HPE Intel Online Firmware Upgrade Utility for Linux x86_64	Version: 1.7.6 NVM: 214.0.224000 Boot Code: 214.0.224.0 UEFI Version - 214.0.207.0 RoCE Version-214.0.182.0 CCM Version- 214.0.218.0	firmware-nic-bcm-nxe-1.7.6-1.1.x86_64.rpm
Drivers Linux	HPE Intel ixgbe Drivers for Red Hat Enterprise Linux 7 x86_64	1.9.2-214.0.182.0	kmod-bnxt_en-1.9.2-214.0.182.0.rhel7u6.x86_64.rpm
Drivers Linux	HPE Intel ixgbe Drivers for SUSE Linux Enterprise Server 12 x86_64	1.9.2-214.0.182.0 (B)	bnxt_en-kmp-default-1.9.2_k4.12.14_94.41-214.0.182.0.sles12sp4.x86_64.rpm bnxt_en-kmp-default-1.9.2_k4.4.73_5-214.0.182.0.sles12sp3.x86_64.rpm
Drivers Linux	HPE Intel ixgbe Drivers for SUSE Linux Enterprise Server 15	1.9.2-214.0.182.0(B)	bnxt_en-kmp-default-1.9.2_k4.12.14_23-214.0.182.0.sles15.x86_64.rpm
Firmware Windows	HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for Windows Server x64 Editions	Version: 5.2.0.0 NVM: 214.0.224000 Boot Code: 214.0.224.0 UEFI Version - 214.0.207.0	cp040817.exe

		RoCE Version-214.0.182.0 CCM Version- 214.0.218.0	
Driver Windows	HPE Broadcom NetXtreme-E Driver for Windows Server 2016	214.0.177.0 (B)	cp040547.exe
Driver Windows	HPE Broadcom NetXtreme-E Driver for Windows Server 2019	214.0.177.0 (B)	cp040548.exe
	HPE Ethernet 10Gb 2P 562T Adapter (817738-B21)		
Firmware Linux	HPE Intel Online Firmware Upgrade Utility for Linux x86_64	Version: 1.19.11 Option Rom -1.2529.0 Single NVM-10.51.3 UEFI 10G-v7.4.06 Boot Agent-v2.4.34 EEPROM- 0x80000F55	firmware-nic-intel-1.18.7-1.1.x86_64.rpm (See Dependencies 1.4)
Drivers Linux	HPE Intel ixgbe Drivers for Red Hat Enterprise Linux 7 x86_64	5.6.4-2	kmod-hp-ixgbe-5.6.4-2.rhel7u7.x86_64.rpm kmod-hp-ixgbe-5.6.4-2.rhel7u6.x86_64.rpm
Drivers Linux	HPE Intel ixgbe Drivers for Red Hat Enterprise Linux 8	5.6.4-2	kmod-hp-ixgbe-5.6.4-2.rhel8u0.x86_64.rpm
Drivers Linux	HPE Intel ixgbe Drivers for SUSE Linux Enterprise Server 12 x86_64	5.6.4-2	hp-ixgbe-kmp-default-5.6.4_k4.4.73_5- 2.sles12sp3.x86_64.rpm hp-ixgbe-kmp-default-5.6.4_k4.12.14_94.41- 2.sles12sp4.x86_64.rpm
Drivers Linux	HPE Intel ixgbe Drivers for SUSE Linux Enterprise Server 15	5.6.4-2	hp-ixgbe-kmp-default-5.6.4_k4.12.14_23- 2.sles15sp0.x86_64.rpm
Firmware Windows	HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions	Package: 5.2.0.0 Option Rom -1.2529.0, Single NVM-10.51.3 UEFI 10G-v7.4.06, Boot Agent-v2.4.34, EEPROM- 0x80000F55	cp040152.exe
Driver Windows	HPE Intel ixs Driver for Windows Server 2016	4.1.131.0 (B)	cp040864.exe
Driver Windows	HPE Intel ixs Driver for Windows Server 2019	4.1.143.0 (B)	cp040865.exe
	HPE Ethernet 10Gb 2-port 562SFP+ Adapter (727055-B21)		

Firmware Linux	HPE Intel Online Firmware Upgrade Utility for Linux x86_64	Package: 1.19.11 Option Rom -1.2529.0, Single NVM-10.51.5 UEFI 10G-v7.4.06, Boot Agent-v2.4.34, EEPROM- 0x80006424	firmware-nic-intel-1.19.11-1.1.x86_64.rpm (See Dependencies 1.3, 1.4, 1.5)
Drivers Linux	HPE Intel i40e Drivers for Red Hat Enterprise Linux 7 x86_64	2.10.19.30-2	kmod-hp-i40e-2.10.19.30-2.rhel7u7.x86_64.rpm kmod-hp-i40e-2.10.19.30-2.rhel7u6.x86_64.rpm
Drivers Linux	HPE Intel i40e Drivers for Red Hat Enterprise Linux 8	2.10.19.30-2	kmod-hp-i40e-2.10.19.30-2.rhel8u0.x86_64.rpm
Drivers Linux	HPE Intel i40e Drivers for SUSE Linux Enterprise Server 12 x86_64	2.10.19.30-2	hp-i40e-kmp-default-2.10.19.30_k4.4.73_5-2.sles12sp3.x86_64.rpm hp-i40e-kmp-default-2.10.19.30_k4.12.14_94.41-2.sles12sp4.x86_64.rpm
Drivers Linux	HPE Intel i40e Drivers for SUSE Linux Enterprise Server 15	2.10.19.30-2	hp-i40e-kmp-default-2.10.19.30_k4.12.14_195-2.sles15sp1.x86_64.rpm
Firmware Windows	HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions	Package: 5.2.0.0 Option Rom -1.2529.0 Single NVM-10.51.5 UEFI 10G-v7.4.06, Boot Agent 1G-v1.5.88 EEPROM-0x80006424	cp040152.exe
Drivers Windows	HPE Intel i40ea Driver for Windows Server 2016	1.11.101.0	cp040856.exe
Drivers Windows	HPE Intel v40e Driver for Windows Server 2016	1.5.86.2	cp036343.exe
Drivers Windows	HPE Intel i40ea Driver for Windows Server 2019	1.11.101.0	cp040857.exe
Drivers Windows	HPE Intel v40e Driver for Windows Server 2019	1.6.215.0	cp037756.exe
	HPE Ethernet 1Gb 2P 361T Adapter (652497-B21)		
Firmware Linux	HPE Intel Online Firmware Upgrade Utility for Linux x86_64	Package: 1.19.11 Option Rom -1.2529.0 Single NVM-N/A UEFI 1G-v9.0.03 Boot Agent 1G-v1.5.88 EEPROM-0x80000F91	firmware-nic-intel-1.19.11-1.1.x86_64.rpm (See Dependencies 1.3, 1.4, 1.5)

Drivers Linux	HPE Intel igb Drivers for Red Hat Enterprise Linux 7 x86_64	6.2.1-1	kmod-hp-igb-6.2.1-1.rhel7u7.x86_64.rpm
Drivers Linux	HPE Intel igb Drivers for Red Hat Enterprise Linux 8	6.2.1-1	kmod-hp-igb-6.2.1-1.rhel8u0.x86_64.rpm
Drivers Linux	HPE Intel igb Drivers for SUSE Linux Enterprise Server 12 x86_64	6.2.1-1	hp-igb-kmp-default-6.2.1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm
Drivers Linux	HPE Intel igb Drivers for SUSE Linux Enterprise Server 15	6.2.1-1	hp-igb-kmp-default-6.2.1_k4.12.14_195-1.sles15sp1.x86_64.rpm
Firmware Windows	HPE Intel Online Firmware Upgrade Utility for Windows Server x64 Editions	Package: 5.2.0.0 Option Rom -1.2529.0, Single NVM-N/A UEFI 1G-v9.0.03, Boot Agent 1G-v1.5.88, EEPROM-0x80000F91	cp040152.exe
Drivers Windows	HPE Intel E1R Driver for Windows Server 2016	12.15.184.7	cp040879.exe
Drivers Windows	HPE Intel E1R Driver for Windows Server 2019	12.18.9.1	cp040874.exe
	HPE Eth 10/25Gb 2p 621SFP28 Adapter (867328-B21)		
Firmware Linux	HPE QLogic FastLinQ Online Firmware Upgrade Utility for Linux x86_64	Package: 1.8.12 Boot (MFW) 8.50.9.0 UEFI 4.1.9.2 PXE 2.0.19 Combo Image 8.50.22	firmware-nic-qlogic-flq-1.8.12-1.1.x86_64.rpm
Drivers Linux	HPE QLogic FastLinQ 10/25/50 GbE Drivers for Red Hat Enterprise Linux 7 x86_64	8.42.8.0-1	kmod-qlgc-fastlinq-8.42.8.0-1.rhel7u6.x86_64.rpm
Drivers Linux	HPE QLogic FastLinQ 10/25/50 GbE Drivers for Red Hat Enterprise Linux 8	8.42.8.0-1	kmod-qlgc-fastlinq-8.42.8.0-1.rhel8u0.x86_64.rpm
Drivers Linux	HPE QLogic FastLinQ 10/25/50 GbE Drivers for SUSE Linux Enterprise Server 12 x86_64	8.42.8.0-1	qlgc-fastlinq-kmp-default-8.42.8.0_k4.12.14_94.41-1.sles12sp4.x86_64.rpm

Drivers Linux	HPE QLogic FastLinQ 10/25/50 GbE Drivers for SUSE Linux Enterprise Server 15	8.42.8.0-1	qlgc-fastlinq-kmp-default-8.42.8.0_k4.12.14_195-1.sles15sp1.x86_64.rpm
Firmware Windows	HPE QLogic FastLinQ Online Firmware Upgrade Utility for Windows Server x64 Editions	Package: 5.2.0.0 Boot (MFW) 8.50.9.0 UEFI 4.1.9.2 PXE 2.0.19 Combo Image 8.50.22	cp039779.exe
Drivers Windows	HPE QLogic FastLinQ 10/25/50 GbE Drivers for Windows Server x64 Editions	Windows qevbd Driver , 8.42.10.0 Windows qend Driver , 8.42.6.0c Windows qefcoe Driver , 8.40.5.0a Windows qeois Driver , 8.42.1.0 Windows qefcd Crash Dump Driver , 8.34.2.0 Windows qeiscd Crash Dump Driver , 8.38.1.0 Windows qxdiag Driver , 8.14.0.0	cp039900.exe
	Superdome Flex Base IO		
Drivers Windows	Identifiers for Intel Xeon Processor Scalable Family for Windows Server 2012 R2 to Server 2019	10.1.18015.8142	cp040561.exe
Drivers Windows	HPE Superdome Flex iRMC INF for Windows Server 2016 and 2019	2.0.0.0	cp037947.exe
Drivers Windows	HPE IPMI BT Driver for Microsoft Windows Server 2012 R2 and 2016	1.2.0.2	cp044199.exe
	Ethernet Connection X722 for Intel ICH 10G BASE-T (BaseIO)		
Drivers Windows	HPE Superdome Flex Intel i40eb Driver for Windows Server 2016	1.11.101.0	cp042897.exe
Drivers Windows	HPE Superdome Flex Intel i40eb Driver for Windows Server 2019	1.11.101.0	cp042247.exe
	Intel Corporation C600/X79 series chipset SATA RAID Controller (BaseIO)		

	HPE Superdome Flex Intel iaStorA Driver for Windows Server 2016 and 2019	6.1.0.1226	cp041192.exe
	Samsung NVME AIC PM1725a/PM1725b		
Firmware Linux	Supplemental Update / Online ROM Flash Component for Linux (x64) - MT001600KWHAC,MT003200KWHAD and MT006400KWHAE Drives	HPS1	firmware-hdd-8e8ddc5265-HPS1-1.1.x86_64.rpm
Firmware Linux	Supplemental Update / Online ROM Flash Component for Linux (x64) - MT001600KWSTB, MT003200KWSTC and MT006400KWSTD Drives	HPK2	firmware-hdd-c57bde09cf-HPK2-1.1.x86_64.rpm
Firmware Windows	Online ROM Flash Component for Windows (x64) - MT001600KWHAC, MT003200KWHAD and MT006400KWHAE Drives	HPS1	cp039546.exe
	Intel NVME P4800		
Firmware Linux	Supplemental Update / Online ROM Flash Component for Linux (x64) - ET000750KWJTF and EO000375KWJUC Drives	HPK3	firmware-hdd-c4355d15c4-HPK3-1.1.x86_64.rpm
	SAS Supplemental		
Utilities Linux	HP D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for Linux (x64)	4.12	firmware-d3000-4.12-1.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH,	HPGE (B)	firmware-hdd-3db7640485-HPGE-2.1.x86_64.rpm

	MK000960GWEZK and MK001920GWHRU Drives		
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK, MK000480GWUGF, MK000960GWUGH, MK001920GWUGK Drives	HPG2 (C)	firmware-hdd-9e87eecb3f-HPG2-3.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFB Drives	HPG3 (D)	firmware-hdd-7677644a25-HPG3-4.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB, and EG1200JEMDA Drives	HPD6 (F)	firmware-hdd-ac3fda26eb-HPD6-6.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - EH000300JWCPK, EH000600JWCPL, and EH000900JWCPN Drives	HPD5 (C)	firmware-hdd-3d97759111-HPD5-3.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - EG1800JEMDB Drives	HPD5 (E)	firmware-hdd-0a38b25661-HPD5-5.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - EH000600JWCPF and EH000900JWCPH Drives	HPD7 (C)	firmware-hdd-a05f29cef3-HPD7-3.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - EG000600JWEBH and EG000300JWEBF Drives	HPD4 (C)	firmware-hdd-aa9e289524-HPD4-3.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) -	HPD2 (C)	firmware-hdd-bdfb8e99d9-HPD2-3.1.x86_64.rpm

	EG000600JWJNP and EG001200JWJNQ Drives		
Utilities Linux	Online HDD/SSD Flash Component for Linux (x64) - EG001800JWJNR and EG002400JWJNT Drives	HPD4 (C)	firmware-hdd-b1c9eaf74c-HPD4-3.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives	HPD2 (C)	firmware-hdd-5dcf26fa42-HPD2-3.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives	HPD1 (C)	firmware-hdd-ef93133161-HPD1-3.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - MM1000GEFQV and MM2000GEFRA Drives	HPG8 (E)	firmware-hdd-ec908c3650-HPG8-5.1.x86_64.rpm
Utilities Linux	Online HDD/SDD Flash Component for Linux (x64) - MM1000GFJTE Drives	HPG5 (C)	firmware-hdd-95af9a555e-HPG5-3.1.x86_64.rpm
Utilities Linux	Online HDD/SSD Flash Component for Linux (x64) - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives	HPD7	firmware-hdd-481c8ea9a7-HPD7-1.1.x86_64.rpm
Utilities Windows	HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM	4.12	cp036704.exe

	Flash Component for Windows (x64)		
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - VK000240GWEZB, VK000480GWEZC, VK000960GWEZD, VK001920GWEZE, MK000240GWEZF, MK000480GWEZH, MK000960GWEZK and MK001920GWHRU Drives	HPGE (B)	cp041320.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - MK000240GWCEU, MK000480GWCEV, MK000960GWCFA and MK001920GWCFB Drives	HPG3 (C)	cp040484.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EG0300JFCKA, EG0600JEMCV, EG0900JFCKB, and EG1200JEMDA Drives	HPD6 (D)	cp040396.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EH000300JWCPK, EH000600JWCPL, and EH000900JWCPN Drives	HPD5 (B)	cp040427.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EG1800JEMDB Drives	HPD5 (D)	cp040571.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EH000600JWCPF and EH000900JWCPH Drives	HPD7 (B)	cp040425.exe
Utilities Linux	Online HDD/SDD Flash Component for Windows (x64) - VK000480GWSXF, VK000960GWSXH, VK001920GWSXK,	HPG2 (B)	cp040795.exe

	MK000480GWUGF, MK000960GWUGH, MK001920GWUGK Drives		
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EG000600JWEBH and EG000300JWEBF Drives	HPD4 (B)	cp040475.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EG000600JWJNP and EG001200JWJNQ Drives	HPD2 (B)	cp040453.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EG001800JWJNR and EG002400JWJNT Drives	HPD4 (B)	cp040474.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - EO000400JWDKP, EO000800JWDKQ, EO001600JWDKR, MO000400JWDKU, MO000800JWDKV, MO001600JWDLA and MO003200JWDLB Drives	HPD2 (B)	cp040450.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - MO000400JWUFT, MO000800JWUFU, MO001600JWUFV, MO003200JWUGA, MO006400JWUGB, EO000400JWUGC, EO000800JWUGD and EO001600JWUGE Drives	HPD1 (B)	cp040481.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - MM1000GEFQV and MM2000GEFRA Drives	HPG8 (D)	cp040397.exe
Utilities Windows	Online HDD/SDD Flash Component for Windows (x64) - MM1000GFJTE Drives	HPG5 (B)	cp040472.exe

Utilities Windows	Online HDD/SSD Flash Component for Windows (x64) - EK0800JVYPN, EO1600JVYPP, MK0800JVYPQ and MO1600JVYPR Drives	HPD7	cp043356.exe
Samsung Drives			
FW	Online HDD/SDD Flash Component for Linux (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV, and VO3840JFDHA Drives	HPD8	firmware-hdd-8ed8893abd-HPD8- 1.1.x86_64.rpm
FW	Online HDD/SDD Flash Component for Linux (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK, and MO3200JFFCL Drives	HPD8	firmware-hdd-edf6dcd906-HPD8-1.1.x86_64.rpm
FW	Online HDD/SDD Flash Component for Linux (x64) - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives	HPD8	firmware-hdd-2eb810cdd7-HPD8- 1.1.x86_64.rpm
FW	Online HDD/SDD Flash Component for Linux (x64) - VO007680JWCNK and VO015300JWCNL Drives	HPD8	firmware-hdd-4c048aaeb0-HPD8- 1.1.x86_64.rpm
FW	Online HDD/SDD Flash Component for Linux (x64) - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives	HPD8 (B)	firmware-hdd-1e51a57347-HPD8- 2.1.x86_64.rpm
FW	Online HDD/SDD Flash Component for Windows (x64) - VO0480JFDGT, VO0960JFDGU, VO1920JFDGV, and VO3840JFDHA Drives	HPD8	cp042221.exe

FW	Online HDD/SDD Flash Component for Windows (x64) - MO0400JFFCF, MO0800JFFCH, MO1600JFFCK, and MO3200JFFCL Drives	HPD8	cp042216.exe
FW	Online HDD/SDD Flash Component for Windows (x64) - VO000480JWDAR, VO000960JWDAT, VO001920JWDAU and VO003840JWDAV Drives	HPD8	cp042628.exe
FW	Online HDD/SDD Flash Component for Windows (x64) - VO007680JWCNK and VO015300JWCNL Drives	HPD8	cp042625.exe
FW	Online HDD/SDD Flash Component for Windows (x64) - VK000960JWSSQ, VK001920JWSSR, VK003840JWSST, VK007680JWSSU and VO015300JWSSV Drives	HPD8	cp042470.exe
DCD			
Utilities Windows	HPE Data Collection Daemon for Windows Server x64 Edition	2.3.0.0	cp043097.exe
NVDIMM			
Utilities Windows	NVDIMM firmware component for Superdome Flex	102005435	firmware-dcpmem-0102005435.00-1.1.x86_64.rp

Note 2: You can find the latest supported firmware and drivers for the HPE 100Gb 1p OP101 QSFP28 x16 adapter on HPE Support Center under <https://support.hpe.com/hpesc/public/home/driverHome?sp4ts.oid=1008830906>

Online Linux deployment dependencies and pre-requisites:

The following are the software dependencies and prerequisites for SUM online Linux deployment (server booted to the OS).

Note: The files referenced below are located in the HPE Superdome Flex I/O Service Pack ISO file under \swpackages:

- 1.1. The package “HPE Fibre Channel Enablement Kit for Linux – Qlogic” must be installed before IO firmware update can be done with Qlogic FC HBA.
- 1.2. The package “HPE Broadcom tg3 Ethernet driver version 3.138a-1” must be installed and already active prior to this component:
 - kmod-tg3-3.138a-1.rhel7u7.x86_64.rpm,
 - kmod-tg3-3.138a-1.rhel7u6.x86_64.rpm,
 - tg3-kmp-default-3.138a_k4.12.14_94.41-2.sles12sp4.x86_64.rpm
 - tg3-kmp-default-3.138a_k4.4.73_5-2.sles12sp3.x86_64.rpm
 - tg3-kmp-default-3.138a_k4.12.14_23-2.sles15.x86_64
 - tg3-kmp-default-3.138a_k4.12.14_195-2.sles15sp1.x86_64
- 1.3. The package “HPE Intel ixgbe driver version 5.6.4-2” must be installed and already active prior to this component:
 - kmod-hp-ixgbe-5.6.4-2.rhel7u7.x86_64.rpm,
 - kmod-hp-ixgbe-5.6.4-2.rhel7u6.x86_64.rpm,
 - hp-ixgbe-kmp-default-5.6.4_k4.4.73_5-2.sles12sp3.x86_64.rpm,
 - hp-ixgbe-kmp-default-5.6.4_k4.12.14_94.41-2.sles12sp4.x86_64.rpm,
 - hp-ixgbe-kmp-default-5.6.4_k4.12.14_23-2.sles15sp0.x86_64.rpm
- 1.4. The package “HPE Intel i40e driver version 2.10.19.30-2” must be installed and already active prior to this component:
 - kmod-hp-i40e-2.10.19.30-2.rhel7u7.x86_64.rpm
 - kmod-hp-i40e-2.10.19.30-2.rhel7u6.x86_64.rpm
 - kmod-hp-i40e-2.10.19.30-2.rhel8u0.x86_64.rpm
 - hp-i40e-kmp-default-2.10.19.30_k4.4.73_5-2.sles12sp3.x86_64.rpm
 - hp-i40e-kmp-default-2.10.19.30_k4.12.14_94.41-2.sles12sp4.x86_64.rpm
 - hp-i40e-kmp-default-2.10.19.30_k4.12.14_195-2.sles15sp1.x86_64.rpm
- 1.5. The package “HPE Intel igb Driver version 6.2.1-1” must be installed and already active prior to this component:
 - kmod-hp-igb-6.2.1-1.rhel7u7.x86_64.rpm
 - kmod-hp-igb-6.2.1-1.rhel8u0.x86_64.rpm
 - hp-igb-kmp-default-6.2.1_k4.12.14_94.41-1.sles12sp4.x86_64.rpm
 - hp-igb-kmp-default-6.2.1_k4.12.14_195-1.sles15sp1.x86_64.rpm
- 1.6. The package “HPE Fibre Channel Enablement Kit - Emulex” must be installed before IO firmware update can be done with Emulex FC HBA.
- 1.7. libhbaapi must be installed prior to installing the package “HP-CNA-FC-Emulex-Enablement-Kit” (RHEL: libhbaapi, SLES: libHBAAPI2). This library can be installed from the OS distribution media.

DCD Pre-requisites:

- HPE IPMI BT driver (cp044199.exe)
- Windows LSI MegaRAID Driver version: 6.714.18.0 to get the MegaRAID inventory and events.

KNOWN ISSUES:

- Systems equipped with multiple NVIDIA GPUs (for example: v100) may experience stability issues (e.g., system unresponsiveness, reboots, etc.) if p2p GPU transactions are implemented, due to NVIDIA software not properly detecting and disabling p2p support. See workaround in Customer Advisory [a00094813](#).
- Online SUM deployment of MegaRAID and SmartRAID SAS drivers and utilities fails on Linux and Windows. **Workaround:** Manually install the driver components.
- Some SAS SSD models used in external HPE disk enclosures (for example HPE D3000 Enclosures) may cause drive failure after 32,768 hours of operation when using a firmware version prior to HPD8. **Workaround:** Update SAS SSD firmware to version HPD8. For details, refer to Customer Bulletin [a00092491](#).
- RMC (Remote Management Controller) "show chassis info" may display the following behavior:
 - It may incorrectly display Serial Number of some HPE Ethernet 1Gb 4-port 331T Adapters.
 - It does not list HPE 9361-4i RAID controller or the HPE NVME PCIe MU cards. There is no functional impact.
 - It may show HPE Ethernet 10/25Gb 2P 640SFP28 Adapter as "none". There is no functional impact. This is addressed by 640QSFP28 adapter Rev D or later.
- In SUM (Smart Update Manager), the "View Details" link, which allows viewing the firmware update status, active version, and available versions during SUM localhost inventory, is not available for HPE 3154-8e RAID controller, Samsung NVMe and Intel P4800 NVMe. There is no functional impact.
- HPE 100Gb 1p OP101 QSFP28 x16 adapter powers on at lower PCIe bandwidth (PCIe Gen 2 speed). **Workaround:** Install Omni-Path Fabric software or driver for full bandwidth (PCIe Gen 3 speed).
- SR-IOV cannot be enabled on Broadcom 631SFP28 without loading UEFI driver; after that, use the supplied bnxtnvm tool to enable SR-IOV.

DCD specific:

- Customers using IRS (Insight Remote Support) may see IRS critical alerts stating "OS runtime critical shutdown occurred on Partition ID 0". When observed after a graceful shutdown, these alerts are erroneously sent by DCD and may be safely ignored.

Linux specific:

- Online SUM deployment of SmartRAID 3154-8e, 3162-8i /e on RHEL 8.0 & 8.1 is not supported. **Workaround:** Install the smart component manually or use offline SUM deployment.
- SUM may erroneously show that a firmware update is needed for HPE 1Gb 361T adapters already running with the latest firmware version 1.19.11. If the firmware update is attempted, it may fail and return an error "operation has failed" even though no update was actually needed. The error can be ignored. Note: No errors are reported if updating from an older firmware version.
- The binary RPM package(s) provided for online update of the 621SFP28 driver are pre-compiled kernel module drivers built specifically for the default inbox kernel (stock kernel) that ships with SLES 12 SP4. HPE supports the pre-compiled kernel module RPMs for use with the SLES 12 SP4 GA kernel.

However they may not install or function as expected on a different kernel (e.g. errata kernel). If you are not using a default inbox kernel, you should download the driver source package (i.e. <driver>.src.rpm) and compile a new driver for your target system from the driver source. To find the location of the driver source RPM, execute the following command for the kernel module driver RPM: ***localhost> rpm -qpi <kernel module driver name>.rpm***

- Crash dump is not working on software initiator based iSCSI on SLES12 SP4, SLES12 SP5, SLES 15 SP1 and RHEL 8.0. **Workaround:** Configure a local disk for crash dump.
Note: This is not a problem on SLES12 SP3, SLES 15 SP2, RHEL 7.x or 8.1.
- 940QSFP56 HDR cards (on OS'es other than SLES 15 SP1): Mellanox OFED 4.7 or later outbox driver is recommended. Note: Uninstall any existing installed infiniband stack prior to installing the OFED 4.7 (or later) driver. OFED 4.7 driver is available at <https://www.hpe.com/global/swpublishing/MTX-ffe6c61b99db407eb89879e4f0>
- On SLES 15 SP1, some of the Ethernet and Infiniband interfaces are not seen after installing the Mellanox OFED 4.7 driver. The mlx5_core and i40e drivers are not found and driver initialization is reported as failed. **Workaround:** Use Mellanox OFED 4.6 or Mellanox OFED 4.7-3.2.9.0 or later.
- The HPE 3154-8e RAID controller is not displayed in the HPE Smart Storage Administrator (HPE SSA) GUI for systems with 3 chassis running SLES. **Workaround:** Use HPE SSA CLI.
- SmartRAID LD's (Logical Drives) may report "smartd: failed to read Temperature".
Workaround: Install smartmontools version 6.5 or above. They can be downloaded from <http://smartmontools.sourceforge.net/>
- Systems with SN1200E or SN1600E Fibre Channel HBAs, running SLES15 SP1 with kernel August 2019 update (SUSE-SU-2019:2073-1, version 4.12.14-197.15) or above may experience a kernel panic in lpfc during a shutdown or reboot of the system. **Workaround:** Do not use SUSE-SU-2019:2073-1 until problem is resolved in a future kernel.

- Linux kdump failure may be encountered with some large I/O configurations. See Customer Advisory [a00037997](#) for details.
- HPE Mellanox InfiniBand online firmware upgrade utility for Linux does not update the firmware on certain network adapters when the HPE server is booted in "Secure Boot" mode. See Customer Advisory [a00041652](#) for details (Note: issue applies to Superdome Flex as well).

Windows Server specific:

- The HPE Ethernet 10Gb 2-port 562SFP+ Adapter Windows online firmware update is not supported. **Workaround:** Use offline firmware update instead.
- Windows 2016 may not have all the in-box drivers present during installation. If you encounter a yellow bang "!", get the driver from the I/O Service Pack ISO file.
- The HPE 9300-8e SAS controller does not support the HPE D3000 disk enclosures on Windows 2016 or 2019.

Windows 2019 specific:

- Failures may be observed when installing Hyper-V including, system reboot followed by OS crash, BSOD with WHEA_UNCORRECTABLE_ERROR, OS error "unable to load the features" or Hyper-V roles/features installation failure when installing on a Fibre Channel disk. This is due to an issue with the storport inbox drivers in the Windows 2019 initial version.
Workaround: Use the Windows Server 2019 March update (KB4489899 OS Build 11763.379)

Oracle Linux/VM specific:

- Node inventory may fail after launching SUM on Oracle Linux.
Workaround: Use offline firmware update instead.
- Oracle VM may not detect all IO cards on Superdome Flex. The following kernel patches are required (see Customer Advisory [a00055514](#) for details):
 - Oracle VM 3.4.4: xen.hpe_upv2.gz - based on xen-4.4.4-155
 - Oracle VM 3.4.5: xen.hpe_upv2.mb.efi - based on xen-4.4.4-196

References:

- For additional OS specific information, refer to the HPE Superdome Flex Server Software Installation and Configuration Guide at this [link](#).
- For details on PMM (HPE Persistent Memory), see the [HPE Persistent Memory Guide for HPE Superdome Flex](#).
- For more details on systems running VMware, please refer to the "Running VMware vSphere on HPE Superdome Flex Server" white paper at <http://www.hpe.com/support/superdome-flex-vmware>.

- For more details on systems running Windows, please refer to the “Running Microsoft Windows Server on HPE Superdome Flex Server” white paper at <http://www.hpe.com/support/superdome-flex-windows>.
- For more details on systems running Linux, please refer to the “Running Linux on HPE Superdome Flex Server” white paper at <http://www.hpe.com/support/superdome-flex-linux>.
- For details on how to **configure SAN boot**, see the Configuring SAN boot on HPE Superdome Flex Servers document at this [link](#).

INSTALLATION:

Please review all instructions and the "Hewlett Packard Enterprise Support Tool License Terms" or your Hewlett Packard Enterprise support terms and conditions for precautions, scope of license, restrictions, and limitation of liability and warranties, before installing this package. It is important that you read and understand these instructions completely before you begin. This can determine your success in completing the firmware update.

I. I/O Firmware and utilities Installation Overview

There are 2 options for installing I/O firmware, online and offline. Most customers will find it convenient to update offline because no pre-requisites are required. Customers wishing to do online I/O firmware update will need to ensure that pre-requisites are satisfied.

Note: Please review all the pre-requisites and known issues prior to starting the update.

Note: Online firmware updates have been verified with RHEL 7.6, RHEL 7.7, RHEL 8.0, SLES 12 SP3, SLES 12 SP4, SLES 15 SP0 & SP1 as well as Windows Server 2016 and 2019. At this time, offline I/O firmware updates are recommended for systems with other supported OS's (see “I/O Firmware Offline Installation” below).

Note: On Linux systems that support online update, after completing the online I/O firmware update, HPE recommends reverting back to the in-box Linux drivers by removing manually the drivers installed as pre-requisites during SUM online deployment. This is because it is safer to update the NIC firmware using the latest driver available, however Superdome Flex I/O was qualified with the Linux in-box drivers.

Download the HPE Superdome Flex I/O Service Pack ISO image file **bp-SuperdomeFlex-2020-05-02-00.iso** before starting the update process. For offline update, download it to any local or remote drive that is visible to the workstation or server from which the JViewer application will run. If updating

References:

- Please refer to the **HPE Superdome Flex Server Software Installation and Configuration Guide** at https://support.hpe.com/hpsc/doc/public/display?sp4ts.oid=1010323142&docId=emr_na-a00038168en_us for details on how to connect KVM or JViewer.
- For systems running VMware, please refer to the “Running VMware vSphere on HPE Superdome Flex Server” white paper at <http://www.hpe.com/support/superdome-flex-vmware>.
- For Windows, the “[Running Microsoft Windows Server on HPE Superdome Flex Server](#)” white paper (for Windows 2016) and “[Installing and Running Microsoft Windows Server 2019 on HPE Superdome Flex Server](#)” (for Windows 2019).

Process for PMM (HPE Persistent Memory) firmware Installation:

To update the PMM (HPE Persistent Memory) firmware, you may use offline update via SUM or you may install the firmware rpm individually and run the setup from the Linux shell:

```
# rpm -ivh firmware-dcpmem-0102005417.00-1.1.x86_64.rpm
# cd /usr/lib/x86_64-linux-gnu/firmware-dcpmem-0102005417.00-1.1/
# ./setup
```

II. I/O Firmware and Utilities Online Installation details

Online installation of I/O firmware is supported with RHEL 7.6, RHEL 7.7, RHEL 8.0, SLES 12 SP3, SLES 12 SP4, SLES 15 SP0 & SP1 as well as Windows Server 2016 and 2019. Skip to “I/O Firmware Offline Installation” below if using any other OS.

KNOWN INSTALLATION ISSUES:

- The Superdome Flex Support Pack Version 2020.03 (**bp-SuperdomeFlex-2020-05-02-00.iso**) is based on Service Pack for **Proliant 2019.12**. During installation, some of the product version numbers in this Service Pack may refer to “Service Pack for **Proliant 2019.12**”.
- When using the image on Linux, it is recommended to run clean-cache.sh to clear data from any prior installation. To run clear-cache:
 1. Shut down the SUM engine.
 2. From a command-line window, navigate to the directory that contains SUM.
 3. Type clear-cache.sh

NOTE: If you are using a GUI, you can navigate to the directory that holds SUM and double-click the file to clear the cache. Running the clean-cache command erases all nodes, baselines, and other information entered in SUM.

Note: You may start SUM to compare the versions on your system with the image versions:

1. Download the HPE Superdome Flex Service Pack image file **bp-SuperdomeFlex-2020-05-02-00.iso** to /mnt/spp
2. mount -o loop **bp-SuperdomeFlex-2020-05-02-00.iso** /mnt/spp
3. cd /mnt/hp/swpackages

4. run `hpsum.sh`, then continue to “Running SUM (on Linux)” below

Running SUM (on Linux):

1. Select “**Local Host Guided Update**” in the SUM window, then select “**Interactive**” (Recommended), press “OK”. This will launch the system inventory (that may take a few minutes to complete).
2. Select “**Next**” after the inventory completes.
3. This takes you to “Deployment Summary”:
 - a. Select the I/O firmware components that need to be updated
4. Select “**Deploy**” to start the update.
5. Review the Deployment status to make sure all components updated successfully.
6. Select "View Log" for each component to get detailed information about a component update.
7. If everything looks OK in the logs, select “Reboot” to finish with the update.

III. I/O Firmware Offline Installation

Offline Update:

1. Connect the server remotely using JViewer and invoke Virtual Media Wizard from JViewer menu bar. Please refer to **HPE Superdome Flex Server Software Installation and Configuration Guide** at this [link](#) for details on how to connect JViewer and attach Virtual Media.
2. Select “Virtual Drives/Image File CD-ROM/DVD” and the Superdome Flex Service Pack image **bp-SuperdomeFlex-2020-05-02-00.iso** on the JViewer console.
3. Make sure the system is at UEFI, type “`map -r`” at the UEFI Shell prompt.
4. Find the FS# of the ISO image. The directory will have a single directory named `efi`.
5. Go to “`FS#:\efi\boot`”
6. Start the HPE Superdome Flex Service Pack update by executing “`bootx64.efi`”
On the partition console, you should see "Welcome to GRUB!"
7. Use the arrow keys to select "Interactive Firmware Update Version 2020.03.00". Check the box next to “Accept the End User License Agreement (EULA)”.
8. SUM will start to load and after some time, the screen will let you chose from “Firmware Update”, “Smart Storage Administrator”, and “Insight Diagnostics”.
9. Select "Firmware Update".
You will see a message “Please wait, loading SUM”.
10. Once SUM loading is done, an “Inventory of baseline” & “Inventory of Localhost” will run in progress-bar sequentially. Select “Next” when it is done.
11. This takes you to “Deployment Summary”: select the components that you want to install.
12. Select “Deploy” to start the update.

13. Verify the update finishes successfully; select "View Log" for each component to get details.
14. Select "Reboot" when finished with the update.

Note: Smart Storage Administrator and Insight Diagnostics are not supported on Superdome Flex Server.

Note: The HPE Superdome Flex user documentation can be found at <http://www.hpe.com/support/hpesc>. Enter 'Superdome Flex' in the search box and select the 'Documents' icon next to the server name.

See also: Configuring SAN boot on HPE Superdome Flex Servers document at this [link](#).

For more information on SUM, see [SUM installation and user guide](#)

DISCLAIMER:

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FEEDBACK

As we are continuing to improve the firmware management process we welcome your feedback on this document and on the firmware update process: TEAM-FWupdateFeedback@groups.ext.hpe.com