

UCP CI Interoperability Matrix

UCP CI v4.0

Hardware

UCP CI (Release Version)	Release date	v4.0			
		Major vSphere Release:	6.5U3EP20	August 3rd, 2020 6.7U3 EP15	7.0 GA
Management and Compute Nodes :					
Components					
BIOS		Versions	Versions	Versions	Notes
BIAC		3816.H00	3816.H01	3816.H01	
CMC		4.64.06	4.65.06	4.65.06	
CPUD		Rev10 / Rev11	Rev10 / Rev11	Rev10 / Rev11	
GPU Family		Skylake / Cascade Lake	Skylake / Cascade Lake	Skylake / Cascade Lake	
Compute Nodes :					
Components					
BIOS		Versions	Versions	Versions	Notes
BIAC		3816.H00	3816.H01	3816.H01	
CMC		4.64.06	4.65.06	4.65.06	
CPUD		Rev10 / Rev11	Rev10 / Rev11	Rev10 / Rev11	
GPU Family		Skylake / Cascade Lake	Skylake / Cascade Lake	Skylake / Cascade Lake	
Compute Nodes :					
Components					
BIOS		Versions	Versions	Versions	Notes
BIAC		3816.H00	3816.H01	3816.H01	
CMC		4.64.06	4.65.06	4.65.06	
CPUD		Rev10 / Rev11	Rev10 / Rev11	Rev10 / Rev11	
GPU Family		Skylake / Cascade Lake	Skylake / Cascade Lake	Skylake / Cascade Lake	
Compute Nodes :					
Components					
BIOS		Versions	Versions	Versions	Notes
BIAC		3816.H00	3816.H01	3816.H01	
CMC		N/A	N/A	N/A	
CPUD		Rev11	Rev11	Rev11	
GPU Family		Skylake	Skylake / Cascade Lake	Skylake / Cascade Lake	

I/O Card Support for DS120/220/225/240

Components	Versions	Notes
Network Cards (Options)		
Intel X327-044, 10GbE quad-port, OCP Mezz	Firmware 1.3.2 i40en Driver (ESX) 1.5.6	4.00 1.7.17 VMware Inbox - 1.8.1.16
Intel X557-14, 10GbE 1-port, OCP Mezz	Firmware 1.3.2 i40en Driver (ESX) 1.5.6	4.00 1.7.17 VMware Inbox - 1.8.1.16
Intel XXV710-DA2, 10/25/40GbE dual-port, PCIe	Firmware 1.6.0.1 i40en Driver (ESX) 1.5.6	2.30 1.7.17 VMware Inbox - 1.8.1.16
Mellanox ConnectX-4 Lx EN 10/25GbE dual-port SFP28, OCP Mezz (except DS240)	Firmware 14.23.1020 mlx5_core Driver (ESX) N/A	14.26.1040 N/A VMware Inbox - 4.19.16.7
Mellanox ConnectX-4 Lx EN 10/25GbE dual-port SFP28, LP-MD2 (PCIe)	Firmware 14.23.1020 mlx5_core Driver (ESX) N/A	14.27.1016 N/A VMware Inbox - 4.19.16.7
Mellanox ConnectX-5 Lx EN 100GbE dual-port QSFP28, PCIe x16	Firmware 14.23.1020 mlx5_core Driver (ESX) N/A	16.27.1016 N/A VMware Inbox - 4.19.16.7
HBA Controller		
Emulex LPx31002 FC HBA	Firmware 12.0.193.13 lpfc Driver (ESX) 12.0.193.14	12.6.182.8 VMware Inbox - 12.4.293.3
Emulex LPx3203 FC HBA	Firmware 12.0.193.13 lpfc Driver (ESX) 12.0.193.14	12.6.182.8 VMware Inbox - 12.4.293.3
RAID Controller		
Broadcom 5A63516 2GB RAID Mezzanine (only for DS240)	Firmware 5.040.00-1123 lsi-mrc3 Driver (ESX) 7.704.7.0	5.100.00.2651 7.707.11.0 5.100.00.2651 VMware Inbox - 7.712.50.00
SAS Controller		
LSI 3216 Mezz Card	Firmware 1414 (15.00.00.00) (20190530) lsi-mag33 Driver (ESX) 16.00.00-10EM	1422 (16.00.09.00) 16.00.00-10EM VMware Inbox - 17.00.10.0
Broadcom 5A89105-16i PCIe (only for DS225)	Firmware 16.00.00-10EM lsi-mag33 Driver (ESX) 16.00.00-10EM	16.00.09.00 16.00.00-10EM VMware Inbox - 17.00.10.0

Drives for vSAN Cache and Capacity (Options) for DS120/220/225/240

Components	Versions	Notes
Intel SSD DC P3600 Series NVMe, 2.5" U2 (All except DS225)	Firmware N/A	BDV10140 Not compatible with DS225
Intel SSD DC P4510 Series NVMe, 2.5" U2 (All except DS225)	Firmware QDV10101	QDV10101 Not compatible with DS225
Intel SSD DC P4600 Series NVMe, 2.5" U2 (All except DS225)	Firmware VDV10111	VDV10170 Not compatible with DS225
Intel SSD DC P4610 Series NVMe, 2.5" U2 (All except DS225)	Firmware QDV10101	QDV10101 Not compatible with DS225
Intel SSD DC P4610 Series NVMe, 2.5" U2 (All except DS225)	Firmware VDV10140	VDV10170 Not compatible with DS225
Intel Optane SSD DC P4800X Series NVMe NVMe, 375GB, 2.5" U2 (All except DS225)	Firmware E2010435	E2010475 Not compatible with DS225
Intel Optane SSD DC P4800X Series NVMe NVMe, 750GB, 2.5" U2 (All except DS225)	Firmware E2010445	E2010475 Not compatible with DS225
NVMe Driver		
Intel SSD DC S4500 Series	Firmware KCV10110	int-nvme-vmd 1.8.1.1001 (Async driver) KCV10121 VMware Inbox - nvme-pcie 1.2.2.13
Intel SSD DC S4600 Series	Firmware KCV10110	KCV10110 Requires SAS Controller
Intel SSD DC S4610 Series	Firmware KCV10110	KCV10110 Requires SAS Controller
Samsung SATA SSD PM883a Series	Firmware GXT5204Q	GXT5204Q Requires SAS Controller
Samsung SATA SSD PM883a Series	Firmware HXT7204Q	HXT7204Q Requires SAS Controller
Seagate SASIII HDD 10000 rpm, 2.5 inch	Firmware 0004	0004 Requires SAS Controller
Seagate SASIII HDD 7200 rpm, 3.5 inch (only for DS220 3.5 8K)	Firmware 0002	0002 Requires SAS Controller
Intel SSD S4510 Series (240 GB, M.2 2280)	Firmware KC311120	KC311120 Only for DS240 Boot Device

Drives for vSAN Cache and Capacity (Options) for DS120/220

Components	Versions	Notes
Intel® Optane™ DC 128 GB Persistent Memory Module (NMA1XKD128GP5)	Firmware 1.2.0.5375	1.2.0.5375
Intel® Optane™ DC 256 GB Persistent Memory Module (NMA1XXD256GP5)	Firmware 1.2.0.5375	1.2.0.5375
Intel® Optane™ DC 512 GB Persistent Memory Module (NMA1XXD512GP5)	Firmware 1.2.0.5375	1.2.0.5375

GPU for DS225

Components	Versions	Notes
NVIDIA Tesla M10	Nvidia Virtual GPU Software for vSphere 440.53	450.55
NVIDIA Tesla M60	Nvidia Virtual GPU Software for vSphere 440.53	450.55
NVIDIA Tesla P40	Nvidia Virtual GPU Software for vSphere 440.53	450.55
NVIDIA Tesla V100	Nvidia Virtual GPU Software for vSphere 440.53	450.55
NVIDIA Tesla T4	Nvidia Virtual GPU Software for vSphere 440.53	450.55

FC Switches

Vendor	Models	Firmware Versions	Notes
Brocade	G620	v4.3.4-8.2.1c or 8.2.1e	Bug found in 8.2.1d or 8.2.1e

Ethernet Switches

Vendor	Model	Firmware Versions	Notes
Arista	7800-604C	N/A	
Arista	DCS-7010T-48R	4.22.4M	4.22.4M
Arista	DCS-7050C3-375R	4.22.4M	4.22.4M
Arista	DCS-7050R3-48FCR-A	4.22.4M	4.22.4M
Arista	Nexus 3048	N/A - No longer used in UCP CI v4.0 and above	N/A - No longer used in UCP CI v4.0 and above
Cisco	Nexus 93180LC-EX	N/A - No longer used in UCP CI v4.0 and above	N/A - No longer used in UCP CI v4.0 and above
Cisco	Nexus 93180YC-EX	N/A - No longer used in UCP CI v4.0 and above	N/A - No longer used in UCP CI v4.0 and above
Cisco	Nexus 9322PQ	N/A	N/A
Cisco	Nexus 9324BGC (1 G Mgmt)	NXOS 9.3.3	NXOS 9.3.3
Cisco	Nexus 93180YC-FX (10/25G Leaf)	NXOS 9.3.3	NXOS 9.3.3
Cisco	Nexus 9332C (100G Spine)	NXOS 9.3.3	NXOS 9.3.3

Storage Models

Vendor	Models	Firmware Versions	Notes
VSP	G200	83-04-26-20/00	83-04-26-20/00
VSP	G400	83-04-26-40/00	83-04-26-40/00
VSP	G600	83-04-26-40/00	83-04-26-40/00
VSP	G800	83-04-26-60/00	83-04-26-60/00
VSP	F400	83-04-26-40/00	83-04-26-40/00
VSP	F600	83-04-26-40/00	83-04-26-40/00
VSP	F800	83-04-26-60/00	83-04-26-60/00
VSP	G350	88-01-04-v0/00	88-01-04-v0/00
VSP	G370	88-01-04-v0/00	88-01-04-v0/00
VSP	G700	88-01-04-v0/00	88-01-04-v0/00
VSP	G900	88-01-04-v0/00	88-01-04-v0/00
VSP	F350	88-01-04-v0/00	88-01-04-v0/00
VSP	F370	88-01-04-v0/00	88-01-04-v0/00
VSP	F390	88-01-04-v0/00	88-01-04-v0/00
VSP	F900	88-01-04-v0/00	88-01-04-v0/00

Software

Software Versions	Component	Version	Notes
VMware	ESXi	6.5U3 (Build # 16576891)	6.7U3 EP15 (Build # 16316930)
VMware	vCenter (VCSA)	6.5U3 (Build # 16613358)	6.7U3h (Build # 16275304)
VMware	NSX	6.7	7.0GA (Build # 15952498)
Hitsachi	UCP Adviser	3.5.3	3.8*
Downloadable ZIPs			
Vendor	Component	Filename	Notes
Hitsachi	Arista Network Firmware ZIP	Arista_Firmware_20200803.zip	Arista_Firmware_20200803.zip
Hitsachi	Cisco Network Firmware ZIP	Cisco_Firmware_20200803.zip	Cisco_Firmware_20200803.zip
Hitsachi	Storage Network Firmware ZIP	Brocade_Firmware_20200803.zip	Brocade_Firmware_20200803.zip
Hitsachi	Server Firmware ZIP	Server_Firmware_20200803.zip	Server_Firmware_20200803.zip
Hitsachi	VMware Software ZIP	vSphere5.5U3_20200803.zip	vSphere7.0GA_20200803.zip
Hitsachi	UCP Toolkit ZIP	UCPtoolkit_20200803.zip	UCPtoolkit_20200803.zip
Main Mediaset ZIP			
Vendor	Component	Filename	Notes
Hitsachi	UCPCI Mediaset	UCPCI_MEDIASIT_V4.0_20200803.zip	UCPCI_MEDIASIT_V4.0_20200803.zip

* Minimum level or above

UCP CI Interoperability Matrix						
UCP CI v1.0.1 - 1.5.0						
Hardware						
UCP CI (Release Version)	v1.0.1	v1.1	v1.1.1	v1.5.0		
Release date	September 7th, 2017	February 5th, 2018	April 9th, 2018	June 4th, 2018		
Major vSphere Release:	6.5U1	6.5U1	6.5U1	6.5U2		
Management and Compute Nodes :						
Components						
Hitachi Advanced Server DS120						
BIOS	3A0B.H2	3A0B.H2	3A10.H3	3A10.H3	Notes	
CMC	3.16.06	3.16.06	3.75.06	3.75.06		
CPUD	Hitachi	Hitachi	Hitachi	Hitachi		
GPU Family	Skylake	Skylake	Skylake	Skylake		
Compute Nodes :						
Hitachi Advanced Server DS220						
BIOS	N/A	N/A	N/A	N/A	Notes	
CMC	N/A	N/A	N/A	N/A		
CPUD	N/A	N/A	N/A	N/A		
GPU Family	N/A	N/A	N/A	N/A		
Hitachi Advanced Server DS225						
BIOS	N/A	N/A	N/A	N/A	Notes	
CMC	N/A	N/A	N/A	N/A		
CPUD	N/A	N/A	N/A	N/A		
GPU Family	N/A	N/A	N/A	N/A		
Hitachi Advanced Server DS240						
BIOS	N/A	N/A	N/A	N/A	Notes	
CMC	N/A	N/A	N/A	N/A		
CPUD	N/A	N/A	N/A	N/A		
GPU Family	N/A	N/A	N/A	N/A		
I/O Card Support for DS120/220/225/240						
Components						
Network Cards (Options)						
Intel X520-GA2 10GbE quad-port, OCP Mezz	Firmware 3.2d i40E Driver (ESK) 1.3.1 (inbox driver)	3.2d 1.3.1 (inbox driver)	3.2d 1.5.6	3.2d 1.5.6	Listed on VMware HCL as: "Intel(R) Ethernet Connection X722 for 10GbE SFP+"	
Intel X557-14, 10GbBase-T quad-port, OCP Mezz	Firmware 3.2d i40E Driver (ESK) 1.3.1 (inbox driver)	3.2d 1.3.1 (inbox driver)	3.2d 1.5.6	3.2d 1.5.6	Listed on VMware HCL as: "Intel(R) Ethernet Connection X722 for 10GbASE-T"	
Intel XXV710-D42, 10/25/40GbE dual-port, PCIe	Firmware N/A i40E Driver (ESK) N/A	N/A N/A	N/A N/A	N/A N/A		
Mellanox ConnectX-4 Lx EN 10/25GbE dual-port SFP28, OCP Mezz (except DS240)	Firmware 14.18.1000 mlx4_core Driver (ESK) 3.16.0.0.1 (inbox driver)	14.18.1000 N/A	14.20.1010 N/A	14.20.1010 N/A	"On 25GbE ConnectX-4 Lx EN Dual port"	
Mellanox ConnectX-4 Lx EN 10/25GbE dual-port SFP28, LP-M3 (PCIe)	Firmware 14.18.1000 mlx4_core Driver (ESK) 3.16.0.0.1 (inbox driver)	14.18.1000 N/A	14.20.1010 N/A	14.20.1010 N/A	"On 25GbE ConnectX-4 Lx EN Dual port supported with driver 4.16.12.12 Async driver"	
Mellanox ConnectX-5 Lx EN 100GbE dual-port QSPF28, PCIe x16	Firmware 14.18.1000 mlx5_core Driver (ESK) N/A mlx5_core Driver (ESK) N/A	14.18.1000 4.3.8.8 N/A	14.20.1010 4.16.10.3 N/A	14.20.1010 4.16.10.3 N/A	Listed on VMware HCL as: "ConnectX-5 Lx EN NIC, 25GbE, dual port SFP28, (MCX4121A-CAE)" "ConnectX-5 Lx EN network interface card, 100GbE dual port QSPF28 (MCX516A-CAE)"	
HBA Controller						
Emulex LP381002 FC HBA	Firmware 11.2.156.27 lpfc Driver (ESK) N/A	11.2.156.27 N/A	11.2.156.27 N/A	11.2.156.27 N/A		
Emulex LP32002 FC HBA	Firmware 11.2.156.27 lpfc Driver (ESK) N/A	11.2.156.27 N/A	11.2.156.27 N/A	11.2.156.27 N/A		
RAID Controller						
Broadcom SAS3116 20B RAID Mezzanine (only for DS240)	Firmware N/A lsi-mr3 Driver (ESK) N/A	N/A N/A	N/A N/A	N/A N/A	Only for DS240	
SAS Controller						
CP 3216 Mezz Card	Firmware N/A lsi_mstg3 Driver (ESK) N/A	N/A N/A	N/A N/A	N/A N/A	Only for DS120 and DS230	
Broadcom SAS9305-16i PCIe (only for DS225)	Firmware N/A lsi_mstg3 Driver (ESK) N/A	N/A N/A	N/A N/A	N/A N/A	Only for DS225	
Drives for vSAN Cache and Capacity (Options) for DS120/220/225						
Components						
Intel SSD DC P5600 Series (NVMe, 2.5" U2) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
Intel SSD DC P4500 Series (NVMe, 2.5" U2) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
Intel SSD DC P4510 Series (NVMe, 2.5" U2) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
Intel SSD DC P4600 Series (NVMe, 2.5" U2) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
Intel SSD DC P4610 Series (NVMe, 2.5" U2) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
Intel Optane SSD DC P4800X Series (NVMe, 3.5" U3) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
Intel Optane SSD DC P4800X Series (NVMe, 3.5" U3) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
Intel Optane SSD DC P4800X Series (NVMe, 3.5" U3) (All except DS225)	Firmware N/A	N/A	N/A	N/A	Not compatible with DS225	
NVMe Drive						
Intel SSD DC S4500 Series	Firmware N/A	N/A	N/A	N/A	Requires SAS Controller	
Intel SSD DC S4510 Series	Firmware N/A	N/A	N/A	N/A	Requires SAS Controller	
Intel SSD DC S4600 Series	Firmware N/A	N/A	N/A	N/A	Requires SAS Controller	
Intel SSD DC S4610 Series	Firmware N/A	N/A	N/A	N/A	Requires SAS Controller	
Samsung SAS SSD PM1633A Series	Firmware N/A	N/A	N/A	N/A	Requires SAS Controller	
Seagate SASIII HDD 10000 rpm, 2.5 inch	Firmware N/A	N/A	N/A	N/A	Requires SAS Controller	
Seagate SASIII HDD 7200 rpm, 3.5 inch (only for DS220/3.5 SKU)	Firmware N/A	N/A	N/A	N/A	Requires SAS Controller	
GPU for DS225						
Components						
NVIDIA Tesla M10	NVIDIA Virtual GPU Software for vSphere N/A	N/A	N/A	N/A	Notes	
NVIDIA Tesla M40	NVIDIA Virtual GPU Software for vSphere N/A	N/A	N/A	N/A		
NVIDIA Tesla P40	NVIDIA Virtual GPU Software for vSphere N/A	N/A	N/A	N/A		
NVIDIA Tesla V100	NVIDIA Virtual GPU Software for vSphere N/A	N/A	N/A	N/A		
FC Switches						
Vendor	Models	Firmware Versions	Firmware Versions	Firmware Versions	Firmware Versions	Notes
Brocade	6620	v8.1.0b	v8.1.0b	v8.1.0b	v8.1.0b	
Ethernet Switches						
Vendor	Models	Firmware Versions	Firmware Versions	Firmware Versions	Firmware Versions	Notes
Quanta	LB9 Mgmt Switch	N/A	N/A	N/A	N/A	
Cisco	Nexus 5548	7.0(3)48B	7.0(3)48B	7.0(3)48B	7.0(3)48B	
Cisco	Nexus 9318UC-EX	7.0(3)181	7.0(3)181	7.0(3)181	7.0(3)181	
Cisco	Nexus 93180YC-EX	7.0(3)4161	7.0(3)4161	7.0(3)4161	7.0(3)4161	
Cisco	Nexus 9332PQ2	N/A	N/A	N/A	N/A	
Storage Models						
Vendor	Models	Microcode Versions	Microcode Versions	Microcode Versions	Microcode Versions	Notes
VSP	G200	83-04-26-20/00	83-04-26-20/00	83-04-26-20/00	83-04-26-20/00	
VSP	G400	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	
VSP	G600	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	
VSP	G800	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	
VSP	F400	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	
VSP	F600	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	
VSP	F800	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	83-04-26-40/00	
VSP	G1500	N/A	N/A	N/A	88-01-04-40/00	
VSP	G1700	N/A	N/A	N/A	88-01-04-40/00	
VSP	G1900	N/A	N/A	N/A	88-01-04-40/00	
VSP	F3350	N/A	N/A	N/A	88-01-04-40/00	
VSP	F3700	N/A	N/A	N/A	88-01-04-40/00	
VSP	F7000	N/A	N/A	N/A	88-01-04-40/00	
VSP	F9000	N/A	N/A	N/A	88-01-04-40/00	
* Minimum level or above						
Software						
Software Versions						
Vendor	Component	Version	Version	Version	Version	Notes
VMware	ESXi	6.5U1 (Build # 2099303)	6.5U1 (Build # 6763664)	6.5U1 (Build # 7886071)	6.5U2 (Build # 8294253)	
VMware	CentOS/VMXSA	6.5U1 (Build # 5713331)	6.5U1 (Build # 5713331)	6.5U1 (Build # 7515324)	6.5U2 (Build # 8294253)	
VMware	VMAN	N/A	N/A	N/A	N/A	
Hitachi	UCP Advisor	1.5	1.5	1.5	1.5	* Requires at least VCSA 6.5.0.3/3c
Downloadable ZIPs						
Vendor	Component	Filename	Filename	Filename	Filename	Notes
Hitachi	Ethernet Network Firmware ZIP	N/A	N/A	N/A	N/A	
Hitachi	Storage Network Firmware ZIP	N/A	N/A	N/A	N/A	
Hitachi	Server Firmware ZIP	N/A	N/A	N/A	N/A	
Hitachi	Network Software ZIP	N/A	N/A	N/A	N/A	
Hitachi	UCPTools ZIP	N/A	N/A	N/A	N/A	
Main Medialtr ZIP						
Vendor	Component	Filename	Filename	Filename	Filename	Notes
Hitachi	UCP CI Medialtr	N/A	N/A	N/A	N/A	