



Hitachi Solution for the SAP HANA Platform Support Matrix

Note: Configurations added since the last matrix release are shown in **red** text.

Introduction

Use this interoperability matrix to verify whether a proposed customer configuration is supported. The Hitachi Solution for the SAP HANA Platform Support Matrix is the official support matrix for Hitachi Unified Compute Platform for the SAP HANA Platform (UCP for SAP HANA) or Hitachi Solution for the SAP HANA Platform in a scale-up or scale-out configuration. SAP Solutions Engineering at Hitachi Vantara validates this matrix. It covers the following:

- SAP-certified appliance configuration
- Supported server configuration for SAP HANA tailored data center integration (TDI)
- Validated enterprise storage configuration for SAP HANA TDI
- Supported operating system and upgrade path

If a combination does not appear on the operating system support matrix, the customer's Hitachi Vantara Sales Engineer (SE) or other field service employee must submit an Interoperability Support Request in order to gain support for the new configuration.

In this document, "N/A" stands for "Not Applicable." If you see "Not Supported," it means that Hitachi Vantara LLC does not support the configuration.

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SAP-Certified Appliance Configuration

Certified Scale-up Appliance Configurations using Hitachi Advanced Server

Configuration		Hitachi Advanced Server					
		D5 220 G2 (IceLake 8368 or 8380 Processors)	D57160 (Cascade Lake 8276 or 8280 Base or Large Processor)	D57000 (Cascade Lake 8276 or 8280 Base, Medium or Large Processor)	D5220 (Cascade Lake 8276 or 8280 Base, Medium or Large Processor)	D57000 (Skylake 8176 or 8176M or 8180 or 8180M Processor)	D5220 (Skylake 8176 or 8176M Processor)
RAM size		25/512 GB, 25/1204 GB, 25/2048 GB, 25/4096 GB	6144 GB – 24576 GB	384 GB – 12 TB	25/768 GB, 25/1536 GB, 25/3072 GB	384 GB – 12 TB	25/768 GB, 25/1536 GB, 25/3072 GB
NIC certified with Appliance		Intel E810-XXVDA2 NIC	Mellanox Connect X4-LX	Mellanox Connect X4-LX	Intel XXV710 NIC	Mellanox Connect X4-LX	Intel XXV710 NIC
HBA		Broadcom Lpe35002-M2	Broadcom Lpe31002-M6	Broadcom Lpe31002-M6	Broadcom Lpe31002-M6	Broadcom Lpe31002-M6	Broadcom Lpe31002-M6
RAID Card		Broadcom QS-3916 Type B MegaRAID (4G DDR) controller card			AVAGO MegaRAID SAS PCIe ROMB-QS-3516B controller card		Broadcom 9460-16i MegaRAID storage controller card
Internal Storage		1.92 TB Intel S4510 SATA			1.92 TB Intel S4510 SATA		1.92TB Intel S4500 SATA
Chassis or Rack Mount	DS7160		Supports SLES 15 SP1*, SLES 15 SP2*, SLES 15 SP3*, RHEL 7.6*, RHEL 8.1*, RHEL 8.2*, RHEL 8.4*				
	DS7000			Supports SLES 12 SP4*, SLES15SP1*, RHEL 7.6*, RHEL 8.1 - 8.2*,		Supports SLES 12 SP2 - SP4*, RHEL 7.4*, RHEL 7.6*, RHEL 8.1*, RHEL 8.2*	
	DS220 (Internal Drive)				Supports SLES 12 SP4*, SLES 15 SP1-SP2*, SLES 15 SP2 - SP3*, RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL8.4*		Supports SLES 12 SP2 - SP4*, SLES 15 SP1*, SLES15SP1 - SP2*, SLES15 SP2 - SP3*, RHEL 7.3 - 7.4*, RHEL7.6*, RHEL 8.1 - 8.2*, RHEL 8.4*
	DS 220 G2 (Internal)	Supports SLES 15 SP2*, SLES 15 SP3*, RHEL 8.2*, RHEL 8.4*					
Storage	VSP G200					Supports SLES 12 SP2*, SLES 12 SP3*, RHEL 7.4*	
	VSP G350	Supports SLES 15 SP2*, SLES 15 SP3*, RHEL 8.2*, RHEL 8.4*	Supports SLES 15 SP1*, SLES 15 SP2*, SLES 15 SP3*, RHEL 7.6*, RHEL 8.1*, RHEL 8.2*, RHEL 8.4*	Supports SLES 12 SP4*, SLES 15SP1*, RHEL 8.1 - 8.2*, RHEL 8.4*	Supports SLES 15 SP3*, RHEL 8.4*	Supports SLES 12 SP3 - SP4*, SLES15 SP1*, RHEL 7.4*, RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL 8.4*	Supports SLES 15 SP3*, RHEL 8.4*

Certified Scale-up Appliance Configurations using Hitachi Server Blade

Configuration		Hitachi Server Blade	
RAM size		520X 83 (Broadwell E7 v4) **	520X 82 (Haswell E7 v3) **
NIC certified with Appliance		256 GB - 8 TB	128 GB - 6 TB
HBA		Intel NIC	Intel NIC
Chassis or Rack Mount		Hitachi HBA	Hitachi HBA
Storage	CB 2500	Supports: SLES 12 SP0 - SP5*, SLES 15 SP2 - SP3*, RHEL 7.2 - 7.4*, RHEL 7.6 - 7.7*, RHEL 7.9*	Supports: SLES 12 SP0 - SP5*, SLES 15 SP2*, RHEL 7.2 - 7.4*, RHEL 7.6 - 7.7*, RHEL 7.9*
	VSP G200	Supports: SLES 12 SP0 - SP5*, SLES 15 SP2 - SP3*, RHEL 7.2 - 7.4*, RHEL 7.6 - 7.7*, RHEL 7.9*	Supports: SLES 12 SP0 - SP5*, SLES 15 SP2*, RHEL 7.2 - 7.4*, RHEL 7.6 - 7.7*, RHEL 7.9*

* Indicates: for operating system support, please check OS vendor support policy.

** Indicates the product is EOL.

A blank indicates that the particular server or storage is not certified in that Unified Compute Platform for SAP HANA configuration.

SAP-Certified Appliance Configuration: Certified Scale-out Configurations

Configuration		Hitachi Advanced Server		Hitachi Server Blade	
		D57040 (Cascade Lake 8276/8276L or 8280/8280L)	D57040 (Skylake 8176 or 8176M or 8180 or 8180M)	520X B3 (Broadwell E7 v4) **	520X B2 (Haswell E7 v3) **
RAM (per node)		4S/3 TB, 4S/1.5 TB	4S/3 TB, 4S/1.5 TB	4S/512 GB, 4S/1 TB, 4S/1.5 TB, 4S/2 TB, 8S/1 TB, 8S/2 TB, 8S/3 TB, 8S/4 TB, 8S/6 TB, 8S/8 TB	4S/512 GB, 4S.1 TB, 4S/1.5 TB, 4S/2 TB, 8S/1 TB, 8S/2 TB, 8S/3 TB, 8S/4 TB
NIC certified with appliance		Mellanox Connect X4-LX	Mellanox Connect X4-LX	Intel NIC	Intel NIC
HBA		Broadcom Lpe31002-M6	Broadcom Lpe31002-M6	Hitachi HBA	Hitachi HBA
Chassis or Rack Mount	DS7040	Supports: SLES 12 SP4*, SLES 15 SP1 - SP2*, SLES15 SP3* RHEL 7.4*, RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL 8.4	Supports: SLES 12 SP2 - SP4*, SLES 15 SP1 - SP2*, SLES 15 SP3* RHEL 7.4*, RHEL 7.6*, RHEL 8.1*		
	CB 2500			Supports: SLES 12 SP0 - SP5*, SLES 15 SP1 - SP2*, SLES 15 SP3* RHEL 7.2, RHEL 7.4*, RHEL 7.6 - 7.7*, RHEL 7.9*	Supports: SLES 12 SP0 - SP5*, SLES15 SP2 - SP3* RHEL 7.2 - 7.4*, RHEL 7.6 - 7.7*, RHEL 7.9*
Storage	VSP G700	Supports 4S/3 TB, 4S/1.5 TB	Supports 4S/3 TB, 4S/1.5 TB		
	VSP G800			Supports 4S/512 GB, 4S/1 TB, 4S/1.5 TB, 4S/2 TB, 8S/1 TB, 8S/2 TB, 8S/3 TB, 8S/4 TB, 8S/6 TB, 8S/8 TB	Supports 4S/512 GB, 4S.1 TB, 4S/1.5 TB, 4S/2 TB
	VSP G1000				Supports 8S/1TB, 8S/2TB, 8S/3 TB, 8S/4 TB
Hitachi NAS Platform	HNAS 4060			Supported	Supported
SMU	Virtual			Supported	Supported
Switches	VDX6740-48			Supported	Supported
	ICX-6430-48			Supported	Supported
	ICX-6430-24			Supported	Supported
	Cisco Nexus 93180YC-FX/EX switch	Supported	Supported		
	Cisco Nexus 92348/3048 switch	Supported	Supported		
Super scale-out		Contact Engineering for support details	Contact Engineering for support details	Contact Engineering for support details	Contact Engineering for support details

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A blank indicates the particular server or storage is not certified in that Unified Compute Platform for SAP HANA configuration.

Supported Server and Operating System (OS) for SAP HANA Tailored Data Center Integration (TDI) Solution
Bare Metal Scale-up or Scale-out SAP HANA TDI Solution

Server and CPU Generation	Operating System	
	Scale-up Configurations	Scale-out Configuration
CB2500 520X B3 (Broadwell E7 v4)	Supports: SLES 12 SP0 - SP5*; SLES 15 SP2 - SP3* RHEL 7.2 - 7.4*	Supports: SLES 12 SP0 - SP5*, SLES 15 SP2 - SP3* RHEL 7.2, RHEL 7.4*, RHEL 7.7*, RHEL 7.9*
CB2500 520X B2 (Haswell E7 v3)	Supports: SLES 12 SP0 - SP5*; SLES 15 SP2 - SP3* RHEL 7.2 - 7.4*	Supports: SLES 12 SP0 - SP5*, SLES 15 SP2 - SP3* RHEL 7.2 - 7.4*, RHEL 7.7*, RHEL 7.9*
CB2500 520H B4 (Broadwell E5 v4)	Supports: SLES 12 SP0 - SP1, RHEL 7.2	N/A
CB2500 520H B3 (Haswell E5 v3)	Supports: SLES 12 SP0 - SP1, RHEL 7.2	N/A
D51B-2U (Broadwell E5 v4)	Supports: SLES 12 SP0 - SP5* RHEL 7.2, RHEL 7.6 - 7.7*, RHEL 7.9*	N/A
D51B-2U (Haswell E5 v3)	Supports: SLES 12 SP0 - SP5* RHEL 7.2*, RHEL 7.6 - 7.7*, RHEL 7.9*	N/A
Hitachi Advanced Server DS220 (Skylake)	Supports: SLES 12 SP2 - SP4*, SLES15 SP1*, SLES15 SP2*, SLES15 SP3* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL 8.4*	N/A
Hitachi Advanced Server DS240 (Skylake)	Supports: SLES 12 SP2 - SP4* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.1*	N/A
Hitachi Advanced Server DS7020 (Skylake)	Supports: SLES 12 SP2 - SP4*, SLES15 SP1*, SLES 15 SP3* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.4*, RHEL 8.2 - 8.4*	N/A
Hitachi Advanced Server DS7040 (Skylake)	Supports: SLES 12 SP2 - SP4*, SLES15 SP1*, SLES 15 SP3* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.4*, RHEL 8.2 - 8.4*	Supports: SLES 12 SP2 - SP4* RHEL 7.4*, RHEL 7.6*
Hitachi Advanced Server DS7080 (Skylake)	Supports: SLES 12 SP2 - SP4*, SLES15 SP1*, SLES 15 SP3* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.4*, RHEL 8.2 - 8.4*	N/A
Hitachi Advanced Server DS220 (Cascade Lake)	Supports: SLES 12 SP4*, SLES15 SP1*, SLES15 SP2*, SLES15 SP3* RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL 8.4*	N/A
Hitachi Advanced Server DS220 G2 (Ice Lake)	Supports: SLES 15 SP2*, SLES 15 SP3*, RHEL 8.2*, RHEL 8.4*	
Hitachi Advanced Server DS7020 (Cascade Lake)	Supports: SLES 12 SP2 - SP4*, SLES 15 SP1*, SLES 15 SP3* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL 8.4*, RHEL 8.2 - 8.4*	N/A
Hitachi Advanced Server DS7040 (Cascade Lake)	Supports: SLES 12 SP2 - SP4*, SLES 15 SP1*, SLES 15 SP3* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL 8.4*, RHEL 8.2 - 8.4*	Supports: SLES 12 SP4*, SLES 15 SP1 - SP2*, SLES 15 SP3* RHEL 7.4*, RHEL 7.6*, RHEL 8.1 - 8.2*
Hitachi Advanced Server DS7080 (Cascade Lake)	Supports: SLES 12 SP2 - SP4*, SLES 15 SP1*, SLES15 SP3* RHEL 7.3 - 7.4*, RHEL 7.6*, RHEL 8.1 - 8.2*, RHEL 8.4*, RHEL 8.2 - 8.4*	N/A
Hitachi Advanced Server DS7020/DS7040/DS7080 (Cascade Lake) with DCPMM	Supports: SLES 12 SP4* RHEL RHEL 7.6*	N/A
Hitachi Advanced Server DS7160 using eXternal Node Controller	Supports: SLES15 SP1*, SLES15 SP2*, SLES15 SP3* RHEL 7.6*, RHEL 8.1, RHEL 8.2*, RHEL 8.4*	N/A

* Indicates: for operating system support, please check OS vendor support policy.

For each server blade used for a scale-up or scale-out bare metal SAP HANA TDI implementation, the supported memory size is same as listed in the certified appliance configuration.

Supported Server Configuration for SAP HANA on Hitachi Unified Compute Platform HC Solution

Configuration		Hitachi Advanced Server
		DS240 (Cascade Lake 8276 or 8280 Base, Medium or Large Processor)
RAM size		768, 1536, 3072, 6144 GB
NIC certified with Appliance		Mellanox MT27800 10/25/100 GbE
HBA		N/A
Switch		Cisco 93180YC-EX/FX switches
		Cisco Nexus 9336C as leaf switches for the 10/25/100 GbE network
		Nexus 9336C switches for the spine
		Cisco Nexus 3048 or 92348 switches
RAID Card		N/A
Internal Storage		OS: Intel S4510 Series M.2 240 GB Cache: 4 x Intel Optane SSD P4800X, 750 GB Capacity: 12 x Intel P4510 Series, 4 or 8 TB
Chassis or Rack Mount	DS240	Supports*: ESXi 6.7 U3 Guest OS - SLES 12 SP4, RHEL 8.1

* Indicates: for operating system support, please check OS vendor support policy.

**Supported Server Configuration for SAP HANA Tailored Data Center
Virtualized TDI Solution for SAP HANA Integration (TDI) Solution**

Server Configuration for VMware vSphere			Server Configuration for a Virtualized TDI Solution for SAP HANA with LPAR	
CPU Generation	Hitachi Advanced Server	Hitachi Blade Server Chassis	Server Blade	Hitachi Blade Server Chassis
		CB 2500		CB 2500
DS7000 (Skylake)	Supports*: ESXi 6.7 U3 - SLES 12 SP3, RHEL 7.4 ESXi 7.0U2a - SLES 15 SP1, RHEL 8.2	NA	520X B3 (Broadwell E7 v4)	Supports*: HVM 9.6, SLES 12 SP0 - SP5, RHEL 7.2
DS7000 (Cascade Lake)	Supports*: ESXi 6.7 U3, ESXi 7.0U2a, SLES 12 SP4, SLES15 SP1 - SP2, RHEL 7.6, RHEL 8.1 ESXi 7.0U2a - SLES 15 SP1, RHEL 8.2	NA		
DS220 (Skylake)	Supports*: ESXi 6.7 U3 SLES 12 SP2, SLES12 SP3, RHEL 7.3, RHEL 7.4	NA	520X B2 (Haswell E7 v3)	Supports*: HVM 9.6, SLES 12 SP0 - SP5, RHEL 7.2
DS220 (Cascade Lake)	NA	NA		
DS220 G2 (Icelake)	Supports*: ESXi 7.0U3c - SLES 15 SP3, RHEL 8.4	NA		
DS240 (Skylake)	Supports*: ESXi 6.7 U3 SLES 12 SP3, RHEL 7.4 ESXi 7.0U2a - SLES 15 SP1, RHEL 8.2	NA		
DS240 (Cascade Lake)	Supports*: ESXi 7.0U2a - SLES 15 SP1, RHEL 8.2	NA		
520X B3 (Broadwell E7 v4)	NA	Supports*: ESX6.0.2, SLES 12 SP0 -SP3, RHEL 7.2		
520X B2 (Haswell E7 v3)	NA	Supports*: ESX6.0.2, SLES 12 SP0 - SP2, RHEL 7.2		

* Indicates: for operating system support, please check OS vendor support policy.

Supported Storage Configuration for SAP HANA Tailored Data Center Integration (TDI) Solution

Hitachi Enterprise Storage	Number of Nodes Certified
VSP G200 with SAS HDD	2
VSP G400 with SAS HDD	7
VSP F400, VSP G400 with flash	16
VSP G600 with SAS HDD	11
VSP G800 with SAS HDD	16
VSP G1000 with SAS HDD	16 per single frame
VSP G1500 with SAS HDD	16 per single frame
VSP F1500, VSP G1500 with flash	64 per single frame, 128 per dual frame
VSP F600 or VSP G600 with flash	28
VSP F600 or VSP G600 with SSD	28
VSP F400 or VSP G400 with SSD	16
VSP G200 with SSD	8
VSP G350 with SAS HDD	3
VSP G350, F350 with SSD	16
VSP G370 with SAS HDD	3
VSP G370, VSP F370 with SSD	16
VSP G700 with SAS HDD	13
VSP G700, VSP F700 with SSD	34
VSP G900, VSP F900 with SSD	40
VSP 5100/5100H/5200/5200H with SSD	37
VSP 5500/5500H/5600/5600H one pair nodes with SSD	74
VSP 5500/5500H/5600/5600H two pair nodes with SSD	148
VSP 5500/5500H/5600/5600H three pair nodes with SSD	222
VSP E990/E1090 with NVMe SSD	50
VSP E790 with NVMe SSD	34
VSP E590 with NVMe SSD	19

Refer to "SAP Note 1943937 — Hardware Configuration Check Tool - Central Note" for further details between HANA-HWC-ES 1.1 and HANA-HWC-ES 1.0. This link requires SAP user access.

Refer to "2493172 - SAP HANA Hardware and Cloud Measurement Tools" for details of HC access

Supported Operating Systems

Operating System and Version	Icelake	Cascade Lake	Skylake	Broadwell	Haswell
SUSE Linux Enterprise Server 12 (EOSL)	No	No	No	Yes	Yes
SUSE Linux Enterprise Server 12 SP1 (EOSL)	No	No	No	Yes	Yes
SUSE Linux Enterprise Server 12 SP2*	No	No	Yes (DS220, DS7000)	Yes	Yes (Upgrade Only)
SUSE Linux Enterprise Server 12 SP3*	No	No	Yes (DS240, DS220, DS7000 scale-up only)	Yes (Upgrade Only)	Yes (Upgrade Only)
SUSE Linux Enterprise Server 12 SP4*	No	Yes (DS220, DS7000)	Yes (DS220, DS7000)	Yes (Upgrade Only)	Yes (Upgrade Only)
SUSE Linux Enterprise Server 12 SP5*	No	No	No	Yes (Upgrade Only)	Yes (Upgrade Only)
SUSE Linux Enterprise Server 15 SP1*	No	Yes (DS220, DS7000, DS7160)	Yes	SAP HANA certification only	No
SUSE Linux Enterprise Server 15 SP2*	Yes (DS 220 G2)	Yes (DS220, DS7000, DS7160)	Yes	Yes (Upgrade Only)	Yes (Upgrade Only)
SUSE Linux Enterprise Server 15 SP3*	Yes (DS 220 G2)	Yes (DS7080,DS220)	Yes (DS220,DS7000)	Yes (Upgrade Only)	No
Red Hat Enterprise Linux 7.2 (EOSL)	No	No	No	Yes	Yes
Red Hat Enterprise Linux 7.3*	No	No	Yes (DS220 only)	Yes (Upgrade only)	Yes (upgrade only)
Red Hat Enterprise Linux 7.4*	No	No	Yes (DS7000, DS240, DS220)	Yes (Upgrade only)	Yes (upgrade only)
Red Hat Enterprise Linux 7.6*	No	Yes (DS220, DS7000, DS7160)	Yes (DS220, DS7000)	Yes (Upgrade Only)	Yes (Upgrade Only)
Red Hat Enterprise Linux 7.7*	No	No	No	Yes (Upgrade Only)	Yes (Upgrade Only)
Red Hat Enterprise Linux 7.9*	No	No	No	Yes (Upgrade Only)	Yes (Upgrade Only)
Red Hat Enterprise Linux 8.1*	No	Yes (DS220, DS7000, DS7160)	Yes (DS220, DS7000)	No	No
Red Hat Enterprise Linux 8.2*	Yes (DS 220 G2)	Yes (DS220, DS7000, DS7160)	Yes (DS220, DS7000)	No	No
Red Hat Enterprise Linux 8.4*	Yes (DS 220 G2)	Yes (DS220,DS7000)	Yes (DS220,DS7000)		
VMware ESXi 5.5 U1(EOSL)	No	No	No	No	No
VMware ESXi 5.5 U2 (EOSL)	No	No	No	No	Yes
VMware ESXi 6.0 U2*	No	No	No	Yes	Yes
VMware ESXi 6.7 U3*	No	Yes	Yes	Yes (Upgrade only)	Yes (Upgrade only)
VMware ESXi 7.0 U2a	No	Yes	Yes	No	No

* Indicates: for operating system support, please check OS vendor support policy.

Supported Operating System Upgrade Path

Upgrade Path	IceLake	CascadeLake	Skylake	Broadwell	Haswell
SUSE Linux Enterprise Server 12 SP0 to SUSE Linux Enterprise Server 12 SP1	No	No	No	Yes	Yes
SUSE Linux Enterprise Server 12 SP0 to SUSE Linux Enterprise Server 12 SP2	No	No	No	No	No
SUSE Linux Enterprise Server 12 SP1 to SUSE Linux Enterprise Server 12 SP2	No	No	No	Yes	Yes
SUSE Linux Enterprise Server 12 SP2 to SUSE Linux Enterprise Server 12 SP3	No	No	Yes (DS220 and DS7000 scale-up only)	Yes	Yes
SUSE Linux Enterprise Server 12 SP3 to SUSE Linux Enterprise Server 12 SP4	No	No	Yes (DS220, DS7000 scale-up)	Yes	Yes
SUSE Linux Enterprise Server 12 SP4 to SUSE Linux Enterprise Server 12 SP5	No	No	No	Yes	Yes
SUSE Linux Enterprise Server 12 SP4 to SUSE Linux Enterprise Server 15 SP1	No	Yes	Yes	No	No
SUSE Linux Enterprise Server 12 SP5 to SUSE Linux Enterprise Server 15 SP2	No	N/A	N/A	Yes	Yes
SUSE Linux Enterprise Server 15 SP1 to SUSE Linux Enterprise Server 15 SP2	No	Yes - repo**	Yes - repo**	No	No
SUSE Linux Enterprise Server 15 SP2 to SUSE Linux Enterprise Server 15 SP3	Yes - repo** (DS220 G2)	Yes - repo**	Yes - repo**	Yes	Yes (scale-out)
Red Hat Enterprise Linux 7.2 to Red Hat Enterprise Linux 7.3	No	No	No	Yes	Yes
Red Hat Enterprise Linux 7.3 to Red Hat Enterprise Linux 7.4	No	No	Yes (DS220 scale-up only)	Yes	Yes
Red Hat Enterprise Linux 7.4 to Red Hat Enterprise Linux 7.6	No	No	Yes (DS7000, DS220 scale-up)	Yes	Yes
Red Hat Enterprise 7.6 to Red Hat Enterprise Linux 7.7	No	No	No	Yes	Yes
Red Hat Enterprise Linux 7.7 to Red Hat Enterprise Linux 7.9	No	No	No	Yes	Yes
Red Hat Enterprise Linux 7.6 to Red Hat Enterprise Linux 8.1 *	No	No	No	No	No
Red Hat Enterprise Linux 7.7 to Red Hat Enterprise Linux 8.2***	No	Yes - repo (DS220 Appliance scale-up)**	Yes - repo (DS220 Appliance scale-up)**	No	No
Red Hat Enterprise Linux 8.1 to Red Hat Enterprise Linux 8.2	No	Yes - repo (DS220 scale-up, DS7000)**	Yes - repo (DS220 and DS7000 scale-up)**	No	No
Red Hat Enterprise Linux 8.2 to Red Hat Enterprise Linux 8.4	Yes - repo (DS220 G2 scale-up)**	Yes - repo (DS220, DS7000 scale-up)**	Yes - repo (DS220, DS7000 scale-up)**		

* Indicates direct path to upgrade from RHEL 7.6 to 8.1 is not supported using Hitachi upgrade media, only fresh RHEL8.1 install is supported

** Indicates that the upgrade needs to be done by following vendor supported procedure using repository

*** Indicates that for DS7000 Scale-up direct path to upgrade from RHEL 7.7 to 8.2 is not supported, only fresh RHEL8.2 install is supported