

Dell Technologies advantage for SAP Business One, version for SAP HANA

Enabled by Dell PowerEdge R650, R750/R750xa, MX750c, and C6520 servers

July 2022

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Solution Guide

Abstract

This solution guide describes the configuration requirements for a Dell Technologies SAP Business One solution for SAP HANA.

Dell Technologies Solutions

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July 2022	SAP certification now covers one-socket servers.

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Introduction

SAP has developed **SAP Business One, version for SAP HANA** as a business management solution for small-to-midsized enterprises (SMEs).

The Dell Technologies for SAP HANA Business One solution incorporates Dell PowerEdge servers with Intel® Xeon® Scalable (Ice Lake) CPUs. This guide provides an overview of the configuration options and system specifications for the Dell Technologies infrastructure in the solution.

For an overview of the benefits for SMEs of running SAP Business One for SAP HANA on Dell Technologies infrastructure, see the [Dell Technologies advantage for SAP Business One Solution Brief](#).

Dell Technologies and the authors of this document welcome your feedback on the solution and the solution documentation. Contact the Dell Technologies SAP Solutions team by [email](#).

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SAP HANA certification

SAP has certified the Dell R650, R750/R750xa, MX750c, and C6520 PowerEdge servers with Intel Ice Lake processors for operating SAP HANA.

IMPORTANT: As of May 2022, the SAP HANA Business One certification also includes one-socket servers with Ice Lake CPUs. This document reflects that enhancement.

To view all SAP HANA certifications, see:

- [Appliance and TDI solutions](#)
- [Hyperconverged solutions](#)

SAP Business One Scale-up Appliance with Ice Lake CPUs

For SAP HANA Business One solutions with 2nd generation Intel Ice Lake processors, install the SAP Business One operating system on a BOSS device with one or two (RAID 1 mirrored) 240 GB or 480 GB M.2 sticks. See SAP Note 1944415: [Hardware Configuration Guide and Software Installation Guide for SUSE Linux Enterprise Server for SAP Business One, version for SAP HANA](#) (access requires SAP login credentials).

Note: The SAP Business One operating system is installed on an ext4 file system. The remaining file systems are XFS. SUSE provides the deployment image.

For the one-socket and two-socket SAP HANA Business One solution, several network card options are available:

- 2 x1 Gigabit BCM5720 (the on-board default)

- Broadcom 5720 QP 1 Gb NIC
- QLogic 57800 2 x 10 Gb DA/SFP+ and 2 x 1 Gb BT network daughter card
- QLogic 57800 2 x 10 Gb BT and 2 x 1 Gb BT network daughter card

Choose the appropriate network card for your environment and connectivity and ensure that the operating system version supports that card. The current operating system version is SUSE Linux Enterprise Server (SLES) 15 SP2.

Supported configurations for SAP HANA Business One

The following tables show the configurations that SAP supports for the SAP HANA Business One solution with Ice Lake processors:

Table 1. Supported one-socket and two-socket configurations

Component	Configuration
64 GB	<p>Server: PowerEdge R650, R750, or MX750c</p> <p>Memory: 8 x 8 GB RDIMM DDR4</p> <p>Sockets populated with only 1x Intel Xeon 4310, Intel Xeon 4314, Intel Xeon Platinum 5318Y, or Intel Xeon 8368</p> <p>PERC H745 or H755 RAID Controller 8 GB cache</p> <p>Operating system: SLES 15 SP2 and newer</p> <p>BOSS device with one or two (RAID 1) M.2 sticks</p> <p>Disk configuration: Minimum capacity of 576 GB (4*128+128/2) with SATA/SAS SSD drives in a RAID 5 configuration</p>
128 GB	<p>Server: PowerEdge R650, R750, or MX750c</p> <p>Memory: 16 x 8 GB RDIMM DDR4</p> <p>Sockets populated with Intel Xeon 4310, Intel Xeon 4314, Intel Xeon Platinum 5318Y, or Intel Xeon 8368</p> <p>PERC H745 or H755 Raid Controller 8 GB cache</p> <p>Operating system: SLES 15 SP2 and newer</p> <p>BOSS device with one or two (RAID 1) M.2 sticks</p> <p>Disk configuration: minimum capacity of 576 GB (4*128+128/2) with SATA/SAS SSD drives in a RAID 5 configuration</p>
256 GB	<p>Server: PowerEdge R650, R750, or MX750c</p> <p>Memory: 32x8 GB RDIMM DDR4 or 16x16 GB RDIMM DDR4</p> <p>Sockets populated with Intel Xeon 4314, Intel Xeon Platinum 5318Y, or Intel Xeon 8368</p> <p>PERC H745 or H755 RAID Controller 8 GB cache</p> <p>Operating system: SLES 15 SP2 and newer</p> <p>BOSS device with one or two (RAID 1) M.2 sticks</p> <p>Disk configuration: minimum capacity of 1,088 GB (4*256+128/2) with SATA/SAS SSD drives in a RAID 5 configuration</p>

Component	Configuration
512 GB	Server: PowerEdge R650, R750, or MX750c Memory: 32x16 GB RDIMM DDR4 and 16x16 GB RDIMM DDR4 Sockets populated with Intel Xeon 4310, Intel Xeon 4314, Intel Xeon Platinum 5318Y, or Intel Xeon 8368 PERC H745 or H755 RAID Controller 8 GB cache Operating system: SLES 15 SP2 and newer BOSS device with one or two (RAID 1) M.2 sticks Disk configuration: minimum capacity of 2560 GB (4*512+512) with SATA/SAS SSD drives in a RAID 5 configuration
768 GB	Server: PowerEdge R650, R750, or MX750c Memory: 16x16 GB LRDIMM DDR4 + 16x32 GB RDIMM DDR4 Sockets populated with Intel Xeon 4314 or Intel Xeon Platinum 5318Y or Intel Xeon 8368 PERC H745 or H755 RAID Controller 8 GB cache Operating system: SLES 15 SP2 and newer BOSS device with one or two (RAID 1) M.2 sticks Disk configuration: minimum capacity of 3584 GB (4*768+512) with SATA/SAS SSD drives in a RAID 5 configuration
1.0 TB	Server: PowerEdge R650, R750, or MX750c Memory: 32x32 GB LRDIMM DDR4 or 16x64 GB RDIMM DDR4 Sockets populated with Intel Xeon 4310, Intel Xeon 4314, Intel Xeon Platinum 5318Y, or Intel Xeon 8368 PERC H745 or H755 RAID Controller 8 GB cache Operating system: SLES 15 SP2 and newer BOSS device with one or two (RAID 1) M.2 sticks Disk configuration: minimum capacity of 4,608 GB (4*1024+512) with SATA/SAS SSD drives in a RAID 5 configuration
1.5 TB	Server: PowerEdge R650, R750, or MX750c Memory: 16x32 GB LRDIMM DDR4 + 16x64 GB LRDIMM DDR4 Sockets populated with Intel Xeon Platinum 5318Y or Intel Xeon 8368 PERC H745 or H755 RAID Controller 8 GB cache Operating system: SLES 15 SP2 and newer BOSS device with one or two (RAID 1) M.2 sticks Disk configuration: minimum capacity of 6656 GB (4*1536+512) with SATA/SAS SSD drives in a RAID 5 configuration

Component	Configuration
2 TB	Server: PowerEdge R650, R750, or MX750c Memory: 32x64 GB LRDIMM DDR4 or 16x128 GB LRDIMM DDR4 Sockets populated with Intel Xeon Platinum 5318Y or Intel Xeon 8368 PERC H745 or H755 RAID Controller 8 GB cache Operating system: SLES 15 SP2 and newer BOSS device with one or two (RAID 1) M.2 sticks Disk configuration: minimum capacity of 8,704 GB (4*2048+512) with SATA/SAS SSD drives in a RAID 5 configuration
4.0 TB	Server: PowerEdge R650, R750, or MX750c Memory: 32 x 128 GB LRDIMM DDR4 or 16 x 256 GB LRDIMM DDR4 Sockets populated with Intel Xeon 8368 PERC H745 or H755 RAID Controller 8 GB cache Operating system: SLES 15 SP2 and newer BOSS device with one or two (RAID 1) M.2 sticks Disk configuration: minimum capacity of 16896 GB (4*4096+512) with SATA/SAS SSD drives in a RAID 5 configuration

Bill of materials

This section provides SKUs for the recommended components of the SAP HANA Business One solution running on Dell PowerEdge servers.

Note:

The bill of materials (BOM) configuration can vary based on the server type and region. Ask your Dell Technologies Account Manager which SKU is required for your country or region. The examples in this guide are intended as an overview of the components (SKUs) that you can use. Create your own BOM in your default language.

One-socket options are available only for systems with Ice Lake CPUs and have the following limitations:

- The server system must support two sockets.
- A single CPU-equipped system can grow to two CPUs.
- Support is available for up to half of the upper-limited maximum memory if a single CPU is selected.
- In every configuration, the DIMM setting role must be fulfilled.
- Systems with one socket must be populated with either 8 or 16 DIMMs in total. Two-socket systems require either 16 or 32 DIMMs in total.

CAUTION! The PowerEdge R650, R750/R750xa, MX750c, and C6520 models are only available with SLES 15 SP2 and newer.

PowerEdge
R650 server

Table 2. PowerEdge R650 BOM

Quantity	SKU	Description
N/A	210-AYJZ	PowerEdge R650 server
1	329-BFGQ	PowerEdge R650 motherboard
1	338-CBWO	Intel Xeon Gold 5318Y 2, 1 GHz, 24C/48T, 11,2 GT/s, 36 MB Cache, Turbo, HT (165 W) DDR4-2933
1	379-BDSS	SAS/SATA- backplane
1	379-BCSF	iDRAC, factory-generated password
1	379-BCQV	iDRAC Group Manager, enabled
1	379-BEID	10 x 2, 5 storage (front end)
1	379-BDTE	No storage (back end)
1	321-BGHN	2.5" chassis with up to 10 hard drives (SAS/SATA), 3 PCIe Slots, 2 CPU
1	325-BECJ	LCD bezel
1	330-BBRP	Riser configuration 0, 2 CPU, half-length, low profile, 3 x16 slots, SW GPU-capable
1	350-BCEI	MOD, TRAY, LGG, TAG, X8/10HDD, R650
1	350-BBXM	Without Quick Sync 1 370-AAIP performance optimization
1	370-AEVR	3.200 MT/s RDIMMs 16 370-AEVO 8 GB RDIMM, 3200 MT/s, Single Rank
1	385-BBQV	iDRAC9, Enterprise 15G
1	405-AAUZ	PERC-H745-Controller, Front
1	412-AAVP	Heat sink configuration with 2 CPUs (CPU maximal 165 W)
2	450-AADY	C13 to C14, PDU style, 10 A, 2m (6.5 F), power cable
1	450-AIQX	Dual, hot-plug, PSU (1 + 1), 800, mixed mode 1 461-AAIG Trusted Platform Module 2.0 V3
1	293-10049	Shipping label - order configuration (shipping date, model, processor speed, hard drive size, RAM)
1	293-10025	Inventory marking - ProSupport (website, barcode, integrated MAC address)
1	540-BCOE	Intel i350 4 Ports 1 GbE BASE-T, OCP NIC 3.0
1	750-ACFQ	PERC mechanical parts (front end), back-loading
1	750-ADIH	4 high-performance fans for 2 CPUs (more than 165 W)
1	770-BDMT	Cable management arm
1	770-BECD	ReadyRails sliding rails without cable management arm or strain relief bar
1	780-BCDS	Unconfigured RAID
1	384-BBBH	Energy-saving BIOS settings service

Quantity	SKU	Description
1	683-19200	Basic Deployment Dell Server R Series 1U/2U
1	709-BBIM	Basic next business day 36 months 1 865-BBND ProSupport Plus and next business day onsite service Initial, 36 months

**PowerEdge
R750/R750xa
servers**

Table 3. PowerEdge R750/ R750xa BOM

Quantity	SKU	Description
N/A	210-AYCG	PowerEdge R750 server
1	329-BGJR	R750 motherboard
1	338-CBWO	Intel Xeon Gold 5318Y 2,1 GHz, 24C/48T, 11,2 GT/s, 36 MB Cache, Turbo, HT (165 W) DDR4-2933
1	379-BDTF	2.5-server housing
1	379-BDSW	SAS-, SATA-, or NVMe-capable backplane
1	379-BDTE	No storage (back-end)
1	379-BCSF	iDRAC, factory-generated password
1	379-BCQV	iDRAC Group Manager, enabled
1	379-BDSR	No GPU enablement
1	321-BGEU	2.5" chassis with up to 8 Universal Drives 1 325-BEBV PowerEdge 2U LCD screen shade
1	330-BBRU	Riser configuration 0, 4x8 slots 1 350-BCED Dell EMC luggage tag
1	350-BBYX	Without Quick Sync 1 370-AAIP performance optimization
1	370-AEVR	3.200 MT/s RDIMMs 16 370-AEVQ 16 GB RDIMM, 3.200 MT/s, Dual Rank
1	385-BBQV	iDRAC9, Enterprise 15G
1	403-BCMG	BOSS-S2 controller card + with 2 M.2 240 GB (RAID 1)
1	405-AAZB	PERC H755 SAS Front
1	412-AAVB	Heatsink for 2 CPU configuration (CPU greater than or equal to 165W)
1	450-AJHG	Dual, hot-plug, redundant power supply (1 + 1), 1400 W
2	450-AADY	C13 to C14, PDU style, 10 A, 2m (6.5 F), power cord
1	461-AAIG	Trusted Platform Module 2.0 V3
1	293-10049	Shipping label - order configuration (shipping date, model, processor speed, hard drive size, RAM)
1	293-10025	Inventory marking: ProSupport (website, barcode, integrated MAC address)
1	470-AERR	BOSS cable and clamp for R750 (Riser 1)
1	481-BBFG	PowerEdge R750 shipping material

Quantity	SKU	Description
1	540-BCOE	Intel i350 4 Ports 1 GbE BASE-T, OCP NIC 3.0
1	750-ACFQ	PERC mechanical parts (front end), rear loading
1	750-AABF	Energy-saving Dell Active Power Controller 1 750-ADGK Standard Fan x6
1	770-BBBQ	ReadyRails sliding rails
1	770-BDRQ	Cable management arm, 2U
1	780-BCDP	RAID 5
1	631-AACK	No system documentation, no OpenManage DVD kit
1	683-19200	Basic Deployment Dell Server R Series 1U/2U
1	709-BBIM	Basic Next Business Day 36 months 1 865-BBMY ProSupport and Next Business Day Onsite Service Initial, 36 months

**PowerEdge
MX750c server**

Table 4. PowerEdge MX750c BOM

Quantity	SKU	Description
N/A	210-AYCP	PowerEdge MX750C server
1	338-CBWK	Intel Xeon Silver 4314 2,4 GHz, 16C/32T, 10,4 GT/s, 24 MB Cache, Turbo, HT (135 W) DDR4- 2666
1	379-BDYP	CFG no PSU selection for sending a single node 1 379-BCQY iDRAC Group Manager, disabled
1	321-BGTG	MX750c sled housing + motherboard
1	321-BGDK	2.5" housing with up to 6 SAS/SATA hard disks (no NVMe)
1	370-AEVR	3,200 MT/s RDIMMs 1 370-AAIP performance optimization
1	385-BBQV	iDRAC9, Enterprise 15G
1	405-AAZU	Dell HBA350i MX
1	412-AAUO	2 CPU heat sink 1 461-AAIG Trusted Platform Module 2.0 V3
1	293-10049	Shipping label - order configuration (shipping date, model, processor speed, hard drive size, RAM)
1	470-AEPO	SAS cable H755 / HBA350i
1	543-BBDH	Intel XXV710 2 ports 10/25 GbE add-on card
1	544-BBCL	Fabric C blanking plate
1	750-AABF	Dell Energy-Efficient Active Power Controller 1 780-BCDI No RAID
1	631-AACK	No system documentation, no OpenManage DVD kit
1	683-21829	ProDeploy Dell EMC PowerEdge MX Series Compute Sled
1	683-21830	ProDeploy Dell EMC PowerEdge MX Series Compute Sled Deployment Verification

Quantity	SKU	Description
1	709-BBIM	Basic Next Business Day 36 Months 1 865-BBNF ProSupport Plus and 4Hr Mission Critical Initial, 36 months

PowerEdge C6520 server

Table 5. PowerEdge C6520 BOM

Quantity	SKU	Description
1	321-BGKQ	PowerEdge C6520, motherboard and sled enclosure
1	338-CBWJ	Intel Xeon Silver 4310 2.1G, 12C/24T, 10.4GT/s, 18M Cache, Turbo, HT (120W) DDR4-2666
1	379-BDCO	1 379-BDCO additional processor selected
1	379-BDYP	1 379-BDYP CFG no PSU selection for sending a single node 1 379-BCQY iDRAC Group Manager, disabled
1	321-BGNN	1 321-BGNN INFO, 2.5BP
1	330-BBUQ	1 330-BBUQ PowerEdge C6520 Riser Configuration 1, Riser 1A, 1 x16 slot
1	370-AAIP	1 370-AAIP performance optimization
1	370-AEVR	1 370-AEVR 3,200 MT/s RDIMMs
1	385-BBQV	1 385-BBQV iDRAC9, Enterprise 15G
1	400-ABHL	1 400-ABHL without hard disk
1	403-BCHV	1 403-BCHV BOSS controller card with 2 x M.2 sticks 240 GB (RAID 1)
1	405-AAACD	1 405-AAACD no controller
1	412-AAWB	1 412-AAWB C6520 heat sink for CPU 2
1	412-AAVY	1 412-AAVY C6520 heat sink (extended) for CPU1
1	461-AAIG	1 461-AAIG Trusted Platform Module 2.0 V3
1	293-10049	1 293-10049 shipping label - order configuration (shipping date, model, processor speed,
1	470-AETW	1 470-AETW hard disk size, RAM
1	540-BCNW	S5, cable MB to linking board (SATA cable)
1	658-BEYX	1 540-BCNW Intel X710 2 ports 10 GbE SFP +, OCP NIC 3.0
1	328-BEEK	1 658-BEYX SW, SYSTEM, 15G, C6520
1	384-BBBH	1 328-BEEK PowerEdge C6520, single drawer, EMEA1 shipping

IMPORTANT: For two-socket servers, add the additional processor, as follows:

SKU:	Description:
379-BDCO	Additional processor

CPU configuration for SAP HANA Business One

Table 6. Supported CPU configurations for SAP HANA Business One

Memory configuration	SKU	64 GB	128 GB	256 GB	512 GB	768 GB	1,024 GB	1,536 GB	2,048 GB	4,096 GB
Intel Xeon Silver 4310 2.1G, 12C/24T, 10.4GT/s, 18M Cache, Turbo, HT (120W) DDR4-2666	338-CBWJ	1	1 or 2	1 or 2	2					
Intel Xeon Silver 4314 2.4G, 16C/32T, 10.4GT/s, 24M Cache, Turbo, HT (135W) DDR4-2666	338-CBWK	1	1 or 2	1 or 2	1 or 2	2	2			
Intel Xeon Gold 5318Y 2.1G, 24C/48T, 11.2GT/s, 36M Cache, Turbo, HT (165W) DDR4-2933	338-CBWO	1	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	2	2	
Intel Xeon Platinum 8368 2.4G, 38C/76T, 11.2GT/s, 57M Cache, Turbo, HT (270W) DDR4-3200	338-CBBZ	1	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	2

Note: Always choose the smallest CPU, provided that the SAP Business One sizing sheet in the customer's daily reports is not showing a significant impact.

Memory configuration for SAP HANA Business One

Note: The SKUs shown are original certified SKUs, but newer SKUs and faster DIMM speeds are also acceptable. Ask your Dell Technologies Account Manager about your region.

Table 7. SAP-supported one-socket memory configurations

Memory configuration	SKU	64 GB	128 GB	256 GB	512 GB	768 GB	1,024 GB	2,048 GB	4,096 GB
8 GB RDIMM, 3200MT/s, Single Rank	370-AEVO	8	16						
16 GB RDIMM, 3200MT/s, Dual Rank	370-AEVQ		8	16					
32 GB RDIMM, 3200MT/s, Dual Rank	370-AEVN / 370-AGDS			8	16	8+8			
64 GB RDIMM, 3200MT/s, Dual Rank	370-AEVP				8		16		
128 GB LRDIMM, 3200MT/s, Quad Rank	370-AGEW						8	16	
256 GB LRDIMM								8	16

Table 8. SAP-supported two-socket memory configurations

Memory configuration	SKU	128 GB	256 GB	512 GB	768 GB	1,024 GB	1,536 GB	2,048 GB	4,096 GB
8 GB RDIMM, 3200MT/s, Single Rank	370-AEVO	16	32						
16 GB RDIMM, 3200MT/s, Dual Rank	370-AEVQ		16	32	16+16				
32 GB RDIMM, 3200MT/s, Dual Rank	370-AEVN / 370-AGDS			16		32	16+16		
64 GB RDIMM, 3200MT/s, Dual Rank	370-AEVP					16		32	
Memory configuration	SKU	128 GB	256 GB	512 GB	768 GB	1,024 GB	1,536 GB	2,048 GB	4,096 GB
128 GB LRDIMM, 3200MT/s, Quad Rank	370-AGEW							16	32
256 GB LRDIMM									16

Legend:

	Recommended configuration
	Not allowed by SAP HANA memory population rules
	Neutral (mixed DIMM configuration)

Summary

This section summarizes the supported configurations for SAP HANA Business One.

DRAM appliance configurations

Table 9. SAP-supported DRAM appliance configurations

One Socket Systems								
DIMM Size/System Memory	64 GB	128 GB	256 GB	512 GB	768 GB	1,024 GB	2,048 GB	4,096 GB
8 GB DIMMs	8	16						
16 GB DIMMs		8	16					
32 GB DIMMs			8	16				
64 GB DIMMs				8	8 + 8	16		
128 GB DIMMs						8	16	
256 GB DIMMs							8	16

Two Socket Systems								
DIMM Size/System Memory	128 GB	256 GB	512 GB	768 GB	1,024 GB	1,536 GB	2,048 GB	4,096 GB
8 GB DIMMs	16	32						
16 GB DIMMs		16	32	16 + 16				
32 GB DIMMs			16		32	16 + 16		
64 GB DIMMs					16		32	
128 GB DIMMs							16	32
256 GB DIMMs								16

Legend	
	Recommended
	Neutral (Mixed DIMM Configuration)
	Not allowed by SAP HANA memory population rules

TDI configurations

Table 25. TDI configuration options

DIMM size/system memory	128 GB	256 GB	512 GB	768 GB	1,024 GB	1,536 GB	2,048 GB	4,096 GB	8,192 GB
8 GB	16	32							
16 GB		16	32	16+16					
32 GB			16		32	16+16			
64 GB					16		32		
128 GB					8	12	16	32	
256 GB					4	6	8	16	32

SAS SSD drives

The following table shows the SSD drive configurations that SAP supports for SAP Business One for SAP HANA.

Note: Ask your Dell Technologies Account Manager which SKU is required for your country or region.

Table 26. SAP-supported SSD drive configurations

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
480 GB SSD SATA Read Intensive 6Gbps 512 2.5in Hot-plug AG Drive, 1 DWPD	400-AXTV	3	4	7	10	12				
480 GB SSD SATA Mix Use 6Gbps 512 2.5in Hot-plug AG Drive, 3 DWPD,	400-AZUT	3	4	7	10	12				
480 GB SSD SATA Read Intensive 6Gbps 512e 2.5in Hot Plug S4510 Drive, 1 DWPD,	400-BDO D	3	4	7	10	12				

SAS SSD drives

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
480 GB SSD SATA Mixed Use 6Gbps 512e 2.5in Hot Plug S4610 Drive	400-BDS D	3	4	7	10	12				
480 GB SSD SAS Mixed use 12Gbps 512e 2.5in Hot-Plug PM5-V Drive, 3 DWPD	400-BCQ G	3	4	7	10	12				
1.92 TB SSD SAS Read Intensive 12 Gbps 512e 2.5in PM5-R Hot-plug Drive, 1 DWPD,	400-BBQ Q	3	3	3	4	4	5	6	9	11
1.92 TB SSD SAS Mixed use 12 Gbps 512e 2.5in Hot-Plug PM5-V Drive, 3 DWPD,	400-BCO M	3	3	3	4	4	5	6	9	11

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
1.92 TB SSD SATA Mix Use 6 Gbps 512 2.5in Hot-plug AG Drive, 3 DWPD,	400-AZTN	3	3	3	4	4	5	6	9	11
1.92 TB SSD SATA Mixed Use 6 Gbps 512e 2.5in Hot Plug S4610 Drive	400-BDS U	3	3	3	4	4	5	6	9	11
1.92 TB SSD SATA Read Intensive 6 Gbps 512e 2.5in Hot-plug S4510 Drive, 1 DWPD,	400-BDO E	3	3	3	4	4	5	6	9	11
1.92 TB SSD SATA Read Intensive 6 Gbps 512 2.5in Hot-plug AG Drive, 1 DWPD,	400-AXSD	3	3	3	4	4	5	6	9	11

SAS SSD drives

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
1.92 TB SSD SAS Read Intensive 12 Gbps 512 2.5in Hot-plug AG Drive, 1 DWPD,	400-AXOP	3	3	3	4	4	5	6	9	11
1.92 TB SSD vSAS Mixed Use 12 Gbps 512e 2.5in Hot-Plug AG drive, 3 DWPD	400-BFSE	3	3	3	4	4	5	6	9	11
1.92 TB Solid-State Drive Value SAS SED Mixed Use 512e 2.5in Hot-Plug AG Drive 3 DWPD	345-BCLJ	3	3	3	4	4	5	6	9	11
1.92TB SSD vSAS Mixed Use 12 Gbps 512e 2.5in Hot-Plug AG SED Drive, 3DWPD,	345-BCSK	3	3	3	4	4	5	6	9	11

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
1.92TB SSD vSAS Read Intensive 12 Gbps 512e 2.5in Hot-Plug, AG SED Drive, 1DWPD,	345-BCS W	3	3	3	4	4	5	6	9	11
3.84TB SSD SATA Read Intensive 6 Gbps 512 2.5in Hot-plug AG Drive, 1 DWPD,	400-AXSK	3	3	3	3	3	3	4	5	6
3.84 TB SSD SATA Read Intensive 6 Gbps 512e 2.5in Hot Plug S4510 Drive, 1 DWPD,	400-BDN K	3	3	3	3	3	3	4	5	6
3.84 TB SSD SAS Read Intensive 12Gbps 512e 2.5in PM5-R Hot-plug Drive, 1 DWPD,	400-BBQ X	3	3	3	3	3	3	4	5	6

SAS SSD drives

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
3.84 TB SSD SAS Read Intensive 12 Gbps FIPS-140 512e 2.5in PM5-R Drive, 1 DWPD	400-BGJZ	3	3	3	3	3	3	4	5	6
3.84 TB SSD SAS Mixed use 12 Gbps 512e 2.5in Hot-Plug PM5-V Drive, 3 DWPD,	400-BCOV	3	3	3	3	3	3	4	5	6
3.84 TB SSD SAS Mixed Use 12 Gbps FIPS-140 512e 2.5in, PM5-V,3 DWPD,	400-BEPF	3	3	3	3	3	3	4	5	6
3.84 TB Solid-State Drive vSAS Read Intensive SED 512e 2.5in Hot-Plug AG Drive 1 DWPD	345-BCEW	3	3	3	3	3	3	4	5	6

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
3.84TB SSD SAS Read Intensive 12 Gbps 512 2.5in Hot-plug AG Drive, 1 DWPD,	400- AXPE	3	3	3	3	3	3	4	5	6
3.84 TB SSD vSAS Mixed Use 12 Gbps 512e 2.5in Hot-Plug AG Drive, 3 DWPD	400- BFQX	3	3	3	3	3	3	4	5	6
3.84 TB SSD vSAS Read Intensive 12 Gbps 512e 2.5in Hot- Plug, AG SED Drive, 1DWPD,	345- BCSY	3	3	3	3	3	3	4	5	6
3.84 TB SSD SAS Read Intensive 12 Gbps 512e 2.5in PM6 1 DWPD Hot-Plug	345- BCN U	3	3	3	3	3	3	4	5	6

Network requirements

Certified disks	SKU	R650, R750(xa), MX750c, C6520 128 GB	R650, R750(xa), MX750c, C6520 256 GB	R650, R750(xa), MX750c, C6520 512 GB	R650, R750(xa), MX750c, C6520 768 GB	R650, R750(xa), MX750c, C6520 1.0 TB	R650, R750(xa), MX750c, C6520 1.5 TB	R650, R750(xa), MX750c, C6520 2.0 TB	R650, R750(xa), MX750c, C6520 3.0 TB	R650, R750(xa), MX750c, C6520 4.0 TB
3.84 TB SSD vSAS Mixed Use 12 Gbps 512e 2.5in Hot-Plug AG SED Drive, 3DWPDP,	345-BCV R	3	3	3	3	3	3	4	5	6

Note: The configurations in [Table 26](#) are provided as examples. Dell Technologies certifies only volume sizes.

Network requirements

For information about the network requirements for the solution, see [SAP HANA Network Requirements](#).

If you are using a specific HCI solution, consult the network recommendations in the corresponding HCI solution guide.

SUSE for SAP SKUs

For a validated deployment image and installation guide for all Dell SAP HANA Appliance Business One solutions, see the [SUSE One Partner Program](#) website (access requires login credentials).

Note: Ask your Dell Technologies Account Manager which SKU is required for your country or region.

SLES SKUS for B1/SAP HANA N/A

The following table shows the SKUs for SLES for SAP:

Table 27. SLES standard SKUs for SAP

SUSE part number	WWW SKU	MOD number	Product description
874-006881	528-CIWT	G6MXK	SUSE Linux Enterprise Server for SAP, 1 to 2 sockets or 1 to 2 VMs, L3 subscription, 1-year, digitally fulfilled
874-006889	528-CIWU	MCGTW	SUSE Linux Enterprise Server for SAP, 1 to 2 sockets or 1 to 2 VMs, L3 subscription, 3-year, digitally fulfilled

SUSE part number	WWW SKU	MOD number	Product description
874-006903	528- CIWV	82CGW	SUSE Linux Enterprise Server for SAP, 1 to 2 sockets or 1 to 2 VMs, L3 subscription, 5-year, digitally fulfilled
874-006882	528- CIWW	RTMX1	SUSE Linux Enterprise Server for SAP, 1 to 2 sockets w/ unlimited VMs, L3 subscription, 1-year, digitally fulfilled
874-006893	528- CIWX	G59D5	SUSE Linux Enterprise Server for SAP, 1 to 2 sockets w/ unlimited VMs, L3 only, 3-year, digitally fulfilled
874-006904	528- CIWY	VKPF8	SUSE Linux Enterprise Server for SAP, 1 to 2 sockets w/ unlimited VMs, L3 only, 5-year, digitally fulfilled subscription

The following table shows the SLES for SAP application SKUs:

Table 28. SLES SKUs for SAP applications

WWW SKU	Product description
529-BTZH	SUSE Enterprise Linux Server for SAP, 1 to 2 sockets or 1 to 2 VMS, L3 only, 1-year subscription
529-BTZD	SUSE Enterprise Linux Server for SAP, 1-2 sockets or 1 to 2 VMS, L3 only, 3-year subscription
529-BTZF	SUSE Enterprise Linux Server for SAP, 1 to 2 sockets or 1 to 2 VMS, L3 only, 5-year subscription
529-BTZG	SUSE Enterprise Linux Server for SAP, 1 to 2 sockets w/ unlimited VMs, L3 only, 1-year subscription
529-BTZC	SUSE Enterprise Linux Server for SAP, 1 to 2 sockets w/ unlimited VMs, L3 only, 3-year subscription
529-BTZE	SUSE Enterprise Linux Server for SAP, 1 to 2 sockets w/ unlimited VMs, L3 only, 5-yr subscription

Notes:

- Only supported with SLES.
- SAP provides the SLES 15SP2 embedded image for the integrator to use during automated installation through the SUSE “Ready to Run” program. **An operating system license is required.**
- SLES for SAP applications is not required unless the customer wants automated SAP HANA system replication (requiring an HA extension license), extended support life cycle, and 24/7 priority support.
- If the customer chooses SLES for SAP applications, the integrator must migrate the initial standard SLES installation to the “for SAP applications” version before continuing.
- Ask your Dell Technologies Account Manager which SKU is required for your country or region.

SUSE operating systems

For information about the SUSE operating systems that are available for download for SAP Business One solutions, see [SUSE Linux Enterprise SAP Business One](#) (access requires login credentials).

The following figure shows the first page of the document:



Figure 1. Available SUSE operating system versions

TDI deployment

SAP HANA TDI offers an additional approach to SAP HANA deployment. The TDI deployment model suits customers who want to continue using their established processes while having flexibility in their hardware component selection. For information about TDI deployments of SAP Business One, version for SAP HANA, see SAP Note 2187112: [SAP Business One, version for SAP HANA on TDI](#) (access requires SAP login credentials).

The following figure shows the first page of SAP Note 2187112:

2020-08-26 2187112

2187112 - SAP Business One, version for SAP HANA on TDI (Tailored Datacenter Integration)

Version:	7	Type	SAP Note:
Language:	English	Master Language	English
Priority:	Recommendations / Additional Info	Category	Consulting
Release Status:	For Checking	Released On	15.05.2018
Component:	SBO-HANA-COM (SAP Business One on SAP HANA installation/upgrade)		

Please find the original document at <https://launchpad.support.sap.com/#notes/2187112>

Symptom

You want to install SAP Business One, version for SAP HANA leveraging the tailored datacenter integration (TDI) deployment option.

Other Terms

B1, Business One

Reason and Prerequisites

SAP HANA tailored data center integration (TDI) was released in November 2013 to offer an additional approach of deploying SAP HANA. While the deployment of an appliance is easy and comfortable for customers, appliances impose limitations on the flexibility of selecting the hardware components for compute servers, storage, and network. Furthermore, operating appliances may require changes to established IT operation processes. For those who prefer leveraging their established processes and gaining more flexibility in hardware selection for SAP HANA, SAP introduced SAP HANA TDI. [TDI overview](#) / [TDI FAQ](#).

Now it is also available for SAP Business One, version for SAP HANA, under certain restrictions.

Solution

Compute Servers

SAP Business One, version for SAP HANA on TDI setups can use:

- [Compute servers from the existing SAP Business One, version for SAP HANA](#)
- [Compute servers from the supported Intel Systems](#) with the following restrictions:
 - For production usage:
 - Intel Xeon SP (Cascade Lake)
 - Only 2-socket servers with minimum 10 cores and CPU type Intel SP-4216 or SP CPU with higher specification. For system sizes ≤ 384, GB is supported with Intel SP-4210.
 - Intel Xeon SP (Skylake)
 - Only 2-socket servers with minimum 10 cores and CPU type Intel SP-5118 or SP CPU with higher specification. For system sizes ≤ 384, GB is supported with Intel SP-4114.
 - Intel Broadwell architecture (Intel Xeon E5-26xx v4)

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Figure 2. SAP Business One, version for SAP HANA on TDI

IMPORTANT: TDI for SAP HANA Business One is only possible in two-socket configurations! One-socket systems are NOT allowed.

HCI deployment for SAP HANA Business One

The SAP Business One solution is certified by SAP to run on all Dell SAP HANA hyperconverged infrastructure (HCI) landscapes, including VxRail, vSAN Ready Node, and PowerFlex systems. For more information, see SAP Note 3017646: [Installing SAP Business One for SAP HANA in a hyperconverged infrastructure \(HCI\) environment on Dell EMC hardware](#) (access requires SAP user credentials).

The following figure shows the first page of SAP Note 3017646:

3017646 - Installing SAP Business One for SAP HANA in a hyperconverged infrastructure (HCI) environment on Dell EMC hardware

Version	1	Type	SAP Note
Language	English	Master Language	English
Priority	Correction with medium priority	Category	Consulting
Release Status	Released for Customer	Released On	03.02.2021
Component	SBO-HANA-COM (SAP Business One on SAP HANA installation/upgrade)		

Please find the original document at <https://launchpad.support.sap.com/#/notes/3017646>

Symptom

You want to install SAP Business One for SAP HANA in a hyperconverged infrastructure (HCI) environment using Dell EMC SAP HANA-certified HCI solutions.

Other Terms

VMware, vSphere, Nutanix, virtualized, B1, Business One, HCI, Dell EMC, Dell Technologies, HCI, VxRail, vSAN Ready Nodes, PowerFlex

Reason and Prerequisites

The SAP HANA hardware directory in the [HCI solutions section](#) lists the Dell EMC HCI solutions that are certified to run SAP HANA Business One.

Configuration and overall setup must comply with the latest version of the Dell EMC best practice document. The hardware directory for the specific solution and the hypervisor configuration from VMware or Nutanix. The [Dell Technologies Solutions Info Hub](#) for SAP lists the solution configuration guides. The following section lists the corresponding hypervisor guides.

Solution

By issuing this SAP Note, SAP extends support for SAP Business One for SAP HANA on all Dell EMC HCI solutions running SAP HANA on either VMware or on Nutanix, which are listed in the [Dell EMC HCI solutions listed in the HANA Hardware Directory](#) to the same degree as general applicable.

For more details please see the following SAP notes:

SAP Note [2652670](#) - SAP HANA VM on VMware vSphere for information about supported ESXi versions

SAP Note [2020657](#) - SAP Business One, version for SAP HANA virtualized for information about support for SAP Business One on VMware

SAP Note [1788665](#) - SAP HANA Support for virtualized/partitioned (multi-tenant) environments for information about SAP HANA support for Nutanix

SAP Note [2686722](#) - SAP HANA virtualized on Nutanix AOS for information about running SAP HANA on Nutanix HCI

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Figure 3. SAP HANA HCI installation on Dell hardware

IMPORTANT: Currently, virtualization is not possible for Ice Lake CPUs because certification for the VMware hypervisor and vSAN is not available. As long as this situation continues, we are unable to offer VxRail HCI for SAP Business One solutions.

SAP HANA Business One on Dell XC powered by Nutanix

SAP Business One for SAP HANA is certified for use in a VMware virtualized environment or with OEM Nutanix on AHV hardware. See SAP Note 2836729: [Installing SAP Business One for SAP HANA in a virtualized environment using Nutanix HCI](#) (access requires SAP user credentials).

The following figure shows the first page of SAP Note 2836729:

2020-02-27

2836729

2836729 - Installing SAP Business One for SAP HANA in a virtualized environment using Nutanix HCI

Version	1	Type	SAP Note
Language	English	Master Language	English
Priority	Correction with medium priority	Category	Consulting
Release Status	Released for Customer	Released On	16.09.2019
Component	SBO-HANA-COM (SAP Business One on SAP HANA installation/upgrade)		

Please find the original document at <https://launchpad.support.sap.com/#/notes/2836729>

Symptom

You want to install SAP Business One for SAP HANA in a virtualized environment using Nutanix HCI infrastructure based on SAP HANA Certified HCI solutions.

Other Terms

Nutanix, AHV, AOS, virtualized, B1, Business One, HCI

Reason and Prerequisites

Running Business One on HANA on Nutanix HCI infrastructure requires using a OEM hardware platform that has been certified to be used and listed in the SAP HANA hardware directory under certified HCI solutions here: <https://www.sap.com/dmc/exp/2014-09-02-hana-hardware/enEN/hci.html#categories=certified%23Nutanix%20AOS>

Configuration and overall setup must comply with the latest version of the best practice guide (<http://download.nutanix.com/solutionsDocs/BP-2097-SAP-HANA.pdf>). This includes compliance to the SAP HANA core-to-memory ratio as reflected in the HANA Hardware Directory and virtualization calculus as described in the best practice guide as well as priority for SAP HANA production workloads over co-deployed non-production workloads.

Solution

By issuing this SAP Note, SAP extends support for SAP Business One, version for SAP HANA on Nutanix HCI infrastructure to the same degree as generally applicable for SAP HANA on Nutanix.

- Please see SAP note [1788665](#) for SAP HANA support on Nutanix (ignore all other virtualization options and HW partitioning technologies).

- Please see SAP note [2686722](#) for the details about running SAP HANA on Nutanix HCI infrastructure.

This document refers to

SAP Note/KBA	Title

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Figure 4. SAP Business One for SAP HANA on Nutanix HCI

Solution certificate

SAP has certified the Dell R650, R750/R750xa, MX750c, and C6520 PowerEdge servers with Intel Ice Lake for operating SAP HANA.

The following figure shows the certification document:

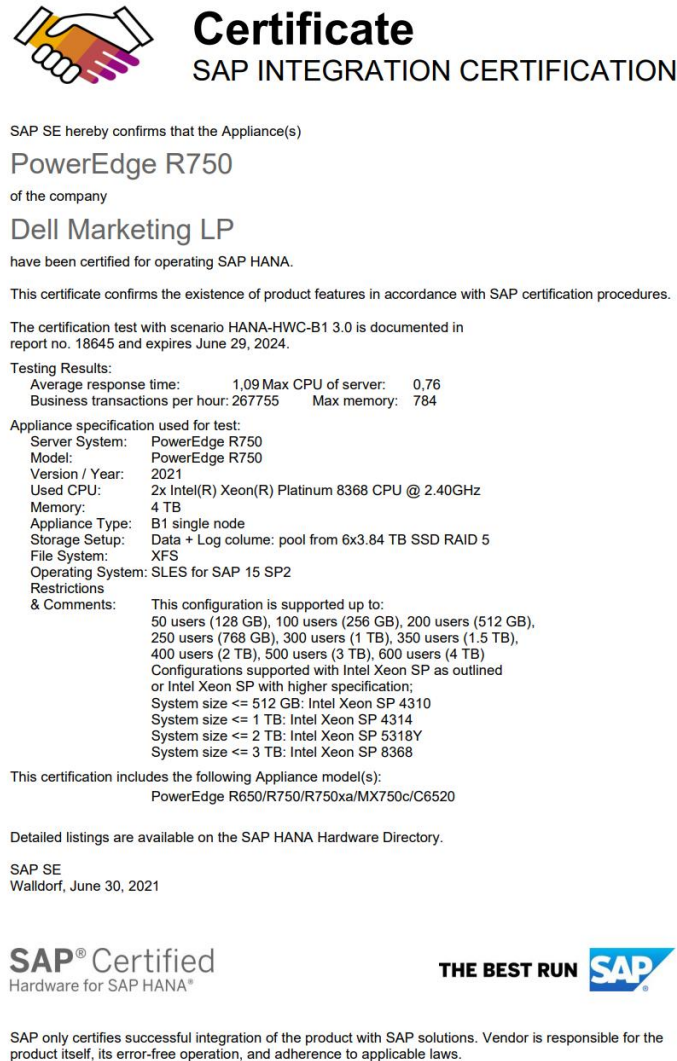


Figure 5. SAP certification for SAP HANA Business One on R750 servers

Ordering process for SAP HANA Business One

SAP

SAP Business One licenses are available through [Sales Order Processing](#).

Dell Technologies

SAP HANA Business One systems are available as a [hardware support offer](#).
Contact your sales representative for more information.

Technical support for SAP HANA Business One

Open a support ticket in [SAP Solutions Manager](#).

If the Solutions Manager is not available, use the SAP Customer Ticketing System.

References

Dell Technologies documentation

For links to additional documentation for this solution, see the [Dell Technologies Solutions Info Hub for SAP](#).

SAP documentation

The following SAP documentation provides additional information about this solution:

Overviews

- [SAP Business One, version for SAP HANA](#)
- [High Availability Concepts for SAP Business One](#)
- [SAP Business One, version for SAP HANA on VMWare vSphere guide](#)

SAP Notes

Access requires SAP login credentials.

- [2382775 - SAP Business One certified servers for SAP HANA](#)
- [2791150 - SAP HANA on Dell EMC hyper-converged infrastructures](#)
- [2187112 - SAP Business One, version for SAP HANA on TDI](#)
- [2216144 - Central Note for SAP Business One 9.2, version for SAP HANA](#)
- [2382775 - SAP Business One certified servers for SAP HANAa](#)

SAP HANA Business One on VMware

- [57924 - SAP Business One, version for SAP HANA on VMWare vSphere guide](#)
- [2020657 - SAP Business One, version for SAP HANA on VMware vSphere](#)
- [2652670 - SAP HANA VM on VMware vSphere](#)

SAP HANA Business One on HCI

- [1788665 - SAP HANA Support for virtualized/partitioned \(multi-tenant\) environments for information about SAP HANA support for Nutanix](#)
- [2020657 - SAP Business One, version for SAP HANA virtualized for information about support for SAP Business One on VMware](#)