

DELL EMC SOLUTION: DESIGNED FOR SAP HANA

Set a modern IT foundation to power the Intelligent Enterprise running mission-critical SAP S/4HANA

ESSENTIALS

SAP HANA Deployment Options

- SAP HANA Data Mart
- SAP Business Suite on HANA (SoH)
- SAP Business Warehouse (BWoH)
- S/4 HANA
- BW/4 HANA

Transformation Guidelines

Modern IT Foundation

- SAP HANA certified
- Performance at scale for mixed SAP workloads

Run SAP HANA as Part of Shared IT Model

- Use existing multi-site data center designs
- Leverage existing skills of data center personnel
- Maintain existing automation and operational processes

Data Protection and Availability

- Enabling “always on” SAP S/4HANA
- Backup / Restore as a Service

Deployment and Migration Services

- SAP HANA Appliance
- SAP HANA TDI Storage Validation
- SAP HANA System Replication
- SAP OS/DB Migration
- SAP HANA Migration
- SAP Data Protection Integration

Today's Situation

SAP HANA and SAP S/4HANA are Disrupting IT

SAP HANA database is foundational for next generation data-driven Intelligent Enterprise applications and processes. Just consider the momentum of SAP HANA¹;

- Since the 2011 release of SAP market-leading SAP HANA for real-time computing, adoption has grown to 31,000 customers
- With the pending 2025 end of maintenance and support for SAP Business Suite 7 applications, IT needs to establish a strategy and architecture to run SAP S/4HANA.

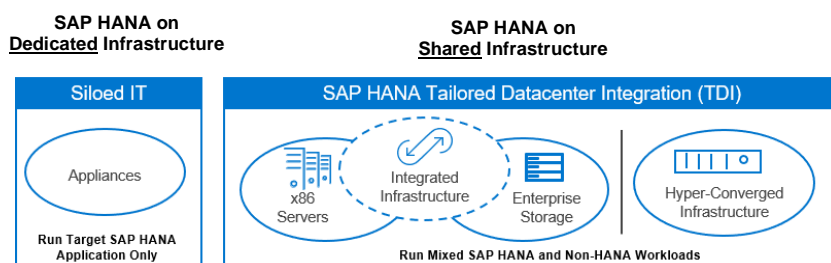
IT's Dilemma

IT requires a modern infrastructure foundation designed to deliver the performance, scale, protection and availability to power new mission-critical data-driven intelligent applications with SAP S/4HANA and SAP Leonardo.

SAP HANA Infrastructure Deployment Scenarios

SAP HANA Certification and Support Program

Dell EMC invests in the SAP HANA Hardware Certification Program to help you fast track implementations with reduced risk.



Dell EMC has partnered with SAP since the release of SAP HANA in 2011, when they announced the HANA Appliance model for targeted workloads.

Since then, Dell EMC's portfolio has expanded to support SAP HANA Tailored Datacenter Integration (TDI), Integrated Infrastructure (both Converged and Autonomous) and Hyper-converged Infrastructure (HCI) models so you can run SAP HANA like any other database on shared infrastructure.

Dell EMC Solution: Designed for SAP HANA

Dell EMC supports all SAP paths for deploying SAP HANA infrastructure on-premises but *running SAP HANA on shared infrastructure* has become the *preferred model* – it gives you more flexibility with lower TCO as you scale.

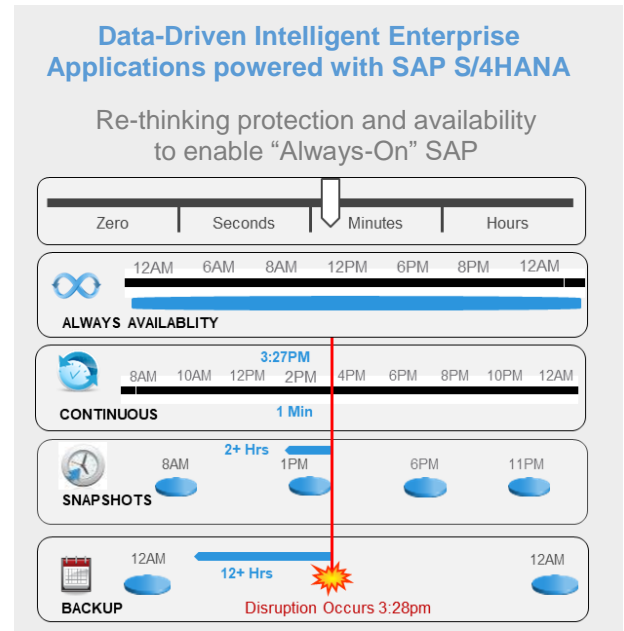
- *SAP HANA TDI certification* allows you to use your own preferred Dell EMC servers, storage, Converged and Autonomous infrastructure.
- You can run SAP HANA on HCI with Dell EMC platforms certified for VMware / vSAN on VxRail, VMware / VxFlex OS on VxFlex and Nutanix on Dell XC.

Protection and Availability

Increasingly, in the digital economy, business critical SAP S/4HANA will require 24/7 availability so you can recover from any planned or unplanned events.

Now is the time to re-think business continuity, data protection and high availability strategies with Dell EMC to;

- Deliver continuous availability for mission-critical SAP with game changing approaches for “always on” SAP protecting and restoring application consistent SAP operations over distances and multiple sites.
- Perform fast recovery from operational errors including data corruption during application patching/maintenance by restoring systems and data to the point in time just prior to the disruption.
- Employ disaster avoidance enabling your business to stay or get back on-line faster.
- Implement smarter backup and recovery including self-service management and control for SAP administrators, faster backups of SAP systems with reduced data footprints, and options for using Backup / Restore as a Service (BRaaS) for long term retention strategies.



Planning your path to SAP HANA and SAP S4/HANA

Your path to transforming IT for SAP is unique. Some common objectives in sustaining classic SAP deployments while migrating to SAP HANA and SAP S/4HANA include the need to:







- Consolidate and simplify IT to lower TCO and increase productivity for traditional SAP Business Suite and SAP Business Warehouse landscapes on infrastructure ready for SAP HANA.
- Run SAP in a cloud operating model bringing greater agility with higher-value features, including self-service, orchestration and application-lifecycle management.
- Enable new data-driven intelligent applications and business processes, powered from the edge to the core.

Dell EMC is ready to support your journey starting with a modern IT foundation designed to run next generation Intelligent Enterprise SAP applications from edge to core to cloud;

- Infrastructure providing consistently high performance for mixed SAP workloads (transactional, reporting, analytics and big data),
- Leveraging SAP Leonardo and emerging technologies including AI, machine learning and IoT,
- Protection and availability solutions enabling IT to re-think new models for “Always-On” SAP, and
- Professional services for SAP HANA deployment, migration and re-platforming projects.

Dell EMC Solution: Designed for SAP HANA

Consult with a Dell EMC SAP Specialist to define your best path to transforming IT for SAP. General guidelines below:

SAP HANA Tailored Data Center Integration (TDI)	
 <p>PowerEdge Servers</p>	<p>Use Dell EMC PowerEdge high performance servers as building blocks to start or scale SAP workloads. Available as SAP HANA Certified Appliances and SAP HANA TDI, they deliver:</p> <ul style="list-style-type: none"> • Performance, density and power efficiency for transactional processing and analytics. • Modular scalability for SAP HANA Scale-out deployments starting with high availability at 2TB RAM and growing to 32TB RAM without disruption. • Ability to scale in increments with no interruption and with no requirement to change architectures or remove existing system components
 <p>Storage (Dell EMC SC & XtremIO also SAP HANA TDI certified)</p>	<p>Dell EMC All-Flash SAN / Unified arrays deliver predictable performance for highly virtualized scale-up and scale-out SAP system landscapes:</p> <ul style="list-style-type: none"> • Effortlessly handles mixed OLTP and OLAP systems - the high random reads and writes SAP NW ERP and SAP BW on classic storage databases. • SAP HANA TDI Storage is certified for input/output all data and low-latency requirements for logs at the persistence layer. <p>SAP HANA TDI on Isilon All-Flash NAS supports the widest range of enterprise workloads plus the extreme demands of IoT data, high performance computing and data analytics.</p>
 <p>Integrated Infrastructure</p>	<p>Dell EMC integrated infrastructure delivers fully-engineered, factory-built systems with dedicated support and life cycle management.</p> <p>Dell EMC VxBlock 1000 (converged infrastructure) and PowerOne (autonomous infrastructure) are built with SAP HANA TDI certified servers and storage.</p>
SAP HANA Hyper-converged Infrastructure (HCI)	
 <p>VxRail HCI</p>	<p>To run SAP HANA on HCI with VMware / vSAN, Dell EMC provides VxRail P570F 2-socket system certified for production and non-production.</p>
 <p>VxFlex HCI</p>	<p>SAP has certified SAP HANA on VxFlex HCI systems as an <i>HCI / single-layer architecture</i> with a vSphere hypervisor and VxFlex OS SDS.</p> <p>To run SAP HANA on HCI with VMware on VxFlex, Dell EMC provides VxFlex (appliances and integrated racks) configured with PowerEdge systems, including dual-socket R640, R740xd and the four-socket R840 server certified for SAP production.</p>
 <p>XC Series HCI</p>	<p>To run SAP HANA on HCI with Nutanix, the Dell EMC 4-socket XC940 and 2-socket XC740xd-24 systems are certified for production and non-production environments.</p>

¹ Source: [SAP Corporate Facts](#), October 2019



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