

# THE BENEFITS OF DEPLOYING SAP HANA ON DELL EMC VXRAIL

Dell EMC VxRail, certified by SAP for SAP HANA® production environments, lets you approach the transition from traditional SAP with ease



Real-time data and intelligence are revolutionizing the way the business world functions. In response, companies are turning to data-driven, intelligent applications, and the SAP enterprise software suite is evolving to meet this need. With the end of maintenance and support for SAP Business Suite 7 applications and SAP HANA 1.0 on the horizon, organizations are strategizing about how to make the move to SAP HANA 2.0 and benefit from next-generation processing and advanced analytics.

To power SAP HANA, companies need a modern infrastructure with sufficient performance, scale, protection and availability. Dell EMC addresses these requirements with VxRail hyperconverged infrastructure (HCI), which allows businesses to deploy SAP or mixed-workload environments and scale rapidly as needed. As the #1 HCI leader,<sup>1</sup> Dell EMC has partnered with SAP for more than 20 years and invests in the SAP HANA Hardware Certification Program to allow companies to fast-track implementations with reduced risk. As a true one-stop shop, Dell EMC not only provides the infrastructure but also has professional services that can assist you with the migration.

## Dell EMC is a leader

- #1 in hyperconverged systems<sup>1</sup>
- 3x leader in Gartner magic quadrant<sup>2</sup>
- SAP HANA certified Hyperconverged Infrastructure solutions<sup>3</sup>
- Dell named 2019 SAP Pinnacle Award Winner for ISV Partner of the Year - Building Products Around the Intelligent Enterprise<sup>4</sup>

**SAP® Certified**  
Hardware for SAP HANA®



## VxRail: Uniquely positioned to simplify IT for SAP HANA landscapes

The exclusive HCI appliance from Dell EMC and VMware

To run SAP HANA on HCI with VMware vSAN, Dell EMC provides two systems certified by SAP: the two-socket all-flash VxRail P570F and the four-socket all-NVMe VxRail P580N. Both dramatically simplify IT operations by consolidating compute, storage and virtualization with full lifecycle management for the complete hardware and software stack. The four-socket VxRail P580N offers 25 percent more processing potential for SAP HANA than solutions based on virtual storage appliance (VSA).<sup>5</sup>

Several VxRail features boost performance and operational efficiency. The infrastructure delivers the throughput, capacity and computational power critical data-intensive workloads such as SAP HANA require across the analytic lifecycle. The enterprise-class resiliency, scalability, availability and data protection VxRail offers ensures companies can be confident about application uptime.

## The migration path from classic SAP to SAP S/4HANA

Today, many businesses are still running SAP applications backed by traditional database management software packages such as Oracle Database, Microsoft SQL Server and IBM Db2. The features in these packages, including in-memory features, have evolved over time but for the most part build on a traditional IO foundation. In contrast, SAP built SAP HANA on an in-memory architecture from the start.

While it's possible to run SAP HANA on traditional 3-tier infrastructure, running it on hyperconverged infrastructure boosts agility while reducing TCO as you scale. Dell EMC VxRail, a certified HCI solution for SAP HANA, delivers a turnkey experience, letting organizations innovate faster and accelerate IT operations.

By moving to VxRail, certified for SAP HANA, businesses retain maximum flexibility to choose one or more of the following options:

- Keep the software as is for now and continue to run SAP ERP applications backed by classic DBMS software on VxRail until the time is right to transition to the full SAP S/4HANA platform
- Immediately migrate databases only to SAP HANA, an in-memory database
- Move both SAP ERP applications and databases to the SAP S/4HANA platform to maximize the business value of the implementation through full adoption

Migrating to an SAP HANA certified HCI solution from Dell EMC today puts your company ahead of the curve. Even if you adopt SAP HANA and SAP S/4HANA gradually, you can shed the limitations of traditional storage infrastructure and reap all the benefits of a hyperconverged infrastructure immediately.

## SAP HANA vs. SAP S/4HANA

SAP HANA is an in-memory database. SAP S/4HANA is an intelligent, integrated enterprise resource planning (ERP) system that runs on SAP HANA.

SAP S/4HANA offers companies:

- intelligent automation supported by artificial intelligence and robotic process automation
- embedded analytics, a conversational interface and digital assistants to help make faster and better business decisions
- hybrid, cloud and on-premise scenarios that share a consistent data model, code line and user experience

## How VxRail helps your bottom line through high availability and operational efficiency

### Get greater availability and business continuity

When your business intelligence and analytics rely on your SAP deployment, you must avoid downtime and data loss at all costs. VxRail includes built-in data protection, allowing administrators to manage, control and protect SAP deployments with ease, simplifying operations and maximizing uptime.

Availability for SAP VMs running on VxRail gets a boost from vSAN features. These include stretched clustering, which allows for synchronous replication between primary and secondary sites to ensure availability even if an entire site were to fail, and fault domains and erasure coding to provide fault tolerance and redundancy. Storage Policy Based Management delivers the appropriate level of service for your VMs. PowerEdge hardware design is resilient, supporting at least five 9s of availability.

VxRail also offers a robust feature set for data management that includes compression and snapshots with reduced overhead and can integrate with Data Protection Suite for Backup for deduplication backup, snapshot-based backup and backup to disk, to tape or to the cloud.

In addition to Data Protection Suite, Dell EMC offers multiple data protection options designed to meet each individual organization's requirements for their SAP environments, including Dell EMC PowerProtect DD series, for cost-effective, reliable backups and VMware Site Recovery for automating site to site failover.

### Improve operational efficiency with automated lifecycle management

Technology changes so rapidly these days that organizations must stay current with the latest software upgrade, updates and patches to secure their valuable data, optimize performance and remain competitive. Traditional approaches to implementing these changes can burden IT staff and interrupt the flow of business.

VxRail HCI System Software consists of multiple, integrated software elements that extend VMware native capabilities to deliver a seamless, automated operational experience. They keep the infrastructure in a continuously validated state to ensure that SAP HANA workloads are consistently up and running. Rapid, automated full stack single-click patching and updating mean that IT administrators avoid time-consuming research, testing and change management. Dell EMC performs automated, repeatable testing on every firmware and software upgrade and patch and provides a single point of support throughout the upgrade process, which allows VxRail customers to evolve without hesitation. Because incremental upgrades are not required, change management activity and wait times decrease. In addition, VxRail enables customers to non-disruptively add next-generation nodes into a cluster to refresh infrastructure without needing to migrate. VxRail ACE can also help simplify operations by assessing the health of your environment, helping to identify anomalies and provide remediation guidance based on Dell EMC best practices and analyzing resource consumption to help IT determine a need to scale up or out.

“Instead of taking days, we can spin up a server or add resources within minutes in our new infrastructure powered by Dell EMC VxBlock and VxRail. This means our customers can meet their project management goals sooner.”

– Manufacturing customer running SAP HANA ERP on Dell EMC VxRail



## Conclusion

SAP HANA-certified VxRail is ideally suited to helping your organization make the transition from classic SAP.

To learn how VxRail can help you achieve the benefits of data-driven business intelligence, visit [www.DellEMC.com/VxRail-for-SAP](http://www.DellEMC.com/VxRail-for-SAP).



“We spend four to six hours per week managing systems, not up to three days. We can now focus more on how IT can provide value for the business, for example, helping engineers do more with operational technology or introducing automation.”

– Manufacturing customer running SAP HANA ERP on Dell EMC VxRail

<sup>1</sup> IDC Quarterly Converged Systems Tracker, Vendor Revenue (US\$M) Q3 2019.

<sup>2</sup> Gartner, Magic Quadrant for Hyperconverged Infrastructure, Jeffrey Hewitt | Philip Dawson | Julia Palmer | John McArthur, 25 November 2019.

<sup>3</sup> [Certified and supported SAP HANA hardware directory](#).

<sup>4</sup> [SAP Announces 2019 Finalists and Winners of the SAP Pinnacle Award](#), 27 March 2019.

<sup>5</sup> SAP HANA requires any VSA-based four-socket platform to dedicate one socket to the virtual controller, leaving only three for processing. The Dell EMC VxRail 580N vSAN-based platform can utilize all four sockets, potentially providing 25 percent more processing.



Learn more about  
Dell EMC VxRail



Contact a Dell EMC Expert



View more resources



Join the conversation  
with #VxRail