

Dell and Red Hat Configurations for SAP HANA™



Dell's solution for SAP HANA

The combination of Dell's enterprise class products and services, HANA from SAP, and Red Hat Enterprise Linux® for SAP HANA allows users to conduct real-time analytics, performance management and operations in a single system from Dell. Dell's optimally configured and SAP certified SAP HANA solutions include a hardware appliance, pre-loaded software and a full range of services.

What is included in Dell's SAP HANA solution?

With Dell's SAP HANA appliance, services and world class support, companies can set themselves apart by delivering complex analytic solutions before their competition. Dell's integrated SAP HANA solution includes:

- **Dell PowerEdge servers** - Dell's PowerEdge R920 incorporates Intel E7 technology, and is certified for SAP HANA and includes everything needed to support your SAP HANA solution. This all-in-one solution includes powerful system management features such as Lifecycle Controller, to provide for seamless and integrated implementation and management. Built with Energy Smart technologies, Dell PowerEdge servers include power management features that enable power capping, power inventory, and power budgeting within your SAP HANA environment.
- **Dell Compellent storage systems** – Used to provide shared storage necessary for larger, "scale-out" configurations, Dell Compellent leverages our Fluid Architecture to deliver high performance and enterprise class management and availability to the SAP HANA environment.
- **Pre-loaded software** – SAP HANA appliance software and Red Hat Enterprise Linux for SAP HANA operating system comes pre-loaded as part of Dell's SAP HANA solution. Red Hat Enterprise Linux for SAP HANA brings the reliability, scalability, and performance of the world's leading enterprise Linux platform to SAP HANA. More than 90% of Fortune Global 500 companies use Red Hat products and solutions. (Source: Red Hat client data and Fortune Global 500 list, 2013)

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Installation and Configuration services

- Planning for SAP HANA deployment;
- Design for SAP HANA landscape; and
- Installation and testing SAP HANA In-Memory databases to support development, quality assurance and production landscape designs.
- **World-Class Support Services** – Dell's world-class ProSupport and Mission Critical Services keep your SAP HANA solution running smoothly. For more thorough support, our HANA Managed Services provide comprehensive management and support for your SAP HANA landscape, including 24 x 7 monitoring, ongoing remote health checks, firmware and software upgrades, including application patching, as well as assistance with problem tracking and resolution.

Below are Dell's HANA single-node and scale-out configurations. For future configurations support information click [here](#) and check the "supported entry level systems" tab.

Dell HANA Single-node R920 configurations

| Configuration | 128GB | 256GB | 512GB | 1TB | 2TB | 3TB |
|-------------------|--|---------------------|---------------------|--|---|-------------------------------------|
| Server | Dell PowerEdge R920 | | | | | |
| Processor | 2x Intel Ivy Bridge EX E7 4880/4890 v2 | | | 4x Intel Ivy Bridge EX E7 4880/4890 v2 | | |
| Memory | 16x 8GB RDIMM-DRx4 | 16x 16GB RDIMM-DRx4 | 32x 16GB RDIMM-DRx4 | 64x 16GB RDIMM-DRx4 | 64x 32GB LRDIMM-QRxx4 | 96x 32GB LRDIMM-QRxx4 |
| Storage* | 12x 900GB 10K rpm + 1 spare (RAID 5) for RHEL for HANA | | | | 12x 900 GB 10K rpm + 1 spare (RAID 5) | 12x 1.2TB 10K rpm + 1 spare (RAID5) |
| OS | Red Hat Enterprise Linux for SAP HANA | | | | | |
| SAP HANA Use Case | OLAP or OLTP | | | | OLTP only SAP Business Suite on HANA | |

* Optional high performance NVMe ExpressFlash SSD log file configurations available.

Dell HANA Scale-out configurations (OLAP only)

| Configuration | 2TB (2 + 1 nodes) | 4TB (4 + 1 nodes) | 6TB (6 + 1 nodes) | 8TB (8 + 1 nodes) | 10TB (10 + 1 nodes) | 12TB (12 + 1 nodes) | 14TB (14 + 1 nodes) | 16TB (16 + 1 nodes) |
|---|---|----------------------|----------------------|----------------------|--|------------------------|------------------------|------------------------|
| Compute | N * Active + 1 Standby Dell PowerEdge R920 consisting of <ul style="list-style-type: none">– 1TB RAM, 4 x Intel Xeon10 core E7-4880/90– Intel Ethernet X540 DP 10Gb BT + I350 1Gb BT DP Network Daughter Card– 2 x Intel10GbE dual port RJ45 (X540-T2), 2 x Qlogic 2660 Single Port 16Gb Optical Fiber Channel HBA | | | | | | | |
| Storage (each Compellent storage array supports up to 8 active nodes + one standby) | Dell Compellent with: <ul style="list-style-type: none">• 2 x SAS, 6Gb, 4 Wide-Port, PCI-e backend/per controller (dual chain)• 2 x FC16, 2-Port QLE2662, PCI-e front end/per controller• 2 x 24 bay 2.5" 1.2TB 10K RPM SAS with 7-24 spindles/per array• 1 x 24 bay 2.5" 400G SAS SSD with 7-24 disks/per array | | | | Dell Compellent (2 nd unit) with: <ul style="list-style-type: none">• 2 x SAS, 6Gb, 4 Wide-Port, PCI-e backend/per controller (dual chain)• 2 x FC16, 2-Port QLE2662, PCI-e front end/per controller• 2 x 24 bay 2.5" 1.2TB 10K RPM SAS with 7-24 spindles/per array• 1 x 24 bay 2.5" 400G SAS SSD with 7-24 disks/per array | | | |
| OS | Red Hat EnterpriseLinux for SAP HANA | | | | | | | |
| Management & Storage Fabric, Networking (complete for entire infrastructure) | <ul style="list-style-type: none">• 2 x Force10 S4820T• 1 x Force10 S60• 2 x Brocade 6510• 1xPER620 as management node | | | | | | | |

