

Cisco UCS Integrated Infrastructure for Big Data and Cisco ACI with SAP HANA Vora

Solution Brief
March 2017



Bring greater context to your decisions by integrating large volumes of unstructured data with enterprise information.

Highlights

Improve big data decision making with enterprise data context

- SAP HANA Vora adds context to big data by combining it with the enterprise data. It turns information into insight through fast, interactive analysis of all your organization's data.

Tested Performance

- Cisco UCS® has set more than 120 world records for performance using industry-standard benchmarks. We offer a full range of scale-up and scale-out solutions to help meet specific performance goals.

Lower Total Cost of Ownership

- Simplified architecture reduces capital costs and integrated management reduces operational costs, resulting in lower total cost of ownership (TCO).

Policy-Based Automation

- We offer the only policy-based infrastructure certified by SAP.
- Role- and policy-based automation makes SAP infrastructure deployment fast and accurate, eliminating the risk of configuration drift.
- Cisco® Application Centric Infrastructure (Cisco ACI™) implements application-aware, policy-based interconnection to accelerate and secure the flow of data.

Information is most powerful when it is turned into real-time insight. Many organizations use Apache Hadoop and its ecosystem of tools to mine big data stores to identify trends and empower decision makers. Apache Hadoop enables the collection, storage, and analysis of vast amounts of data in a cost-effective way. To turn this data into meaningful insight, organizations need two capabilities: fast, interactive access to the data and a means of combining their big data stores with the rest of their data assets.

SAP HANA Vora enables precise decisions by providing real-time access to all the data in enterprise applications, data warehouses, and big data lakes. Enterprise data and big data each have value. By bringing them together, SAP HANA Vora presents new opportunities for analysts and data scientists, creating a competitive advantage for those who use this approach.

Cisco UCS® Integrated Infrastructure for Big Data and Analytics provides a foundation for the next generation of big data architecture with simplified and centralized management, industry-leading performance, and linearly scalable infrastructure (Figure 1).

Together, the Cisco Unified Computing System™ (Cisco UCS) and SAP HANA Vora apply the power of in-memory processing to massively distributed data stores. You can discover new insights by combining traditional sources of data with valuable data arriving continually from outside your organization.

Infrastructure Matters for SAP HANA Vora Deployment

Cisco has a long history of delivering innovative infrastructure for SAP implementations with certified reference architectures that reduce cost and risk. Cisco® Validated Designs describe how to integrate all solution components into a fully working, prevalidated architecture, saving time, reducing risk, and eliminating guesswork.

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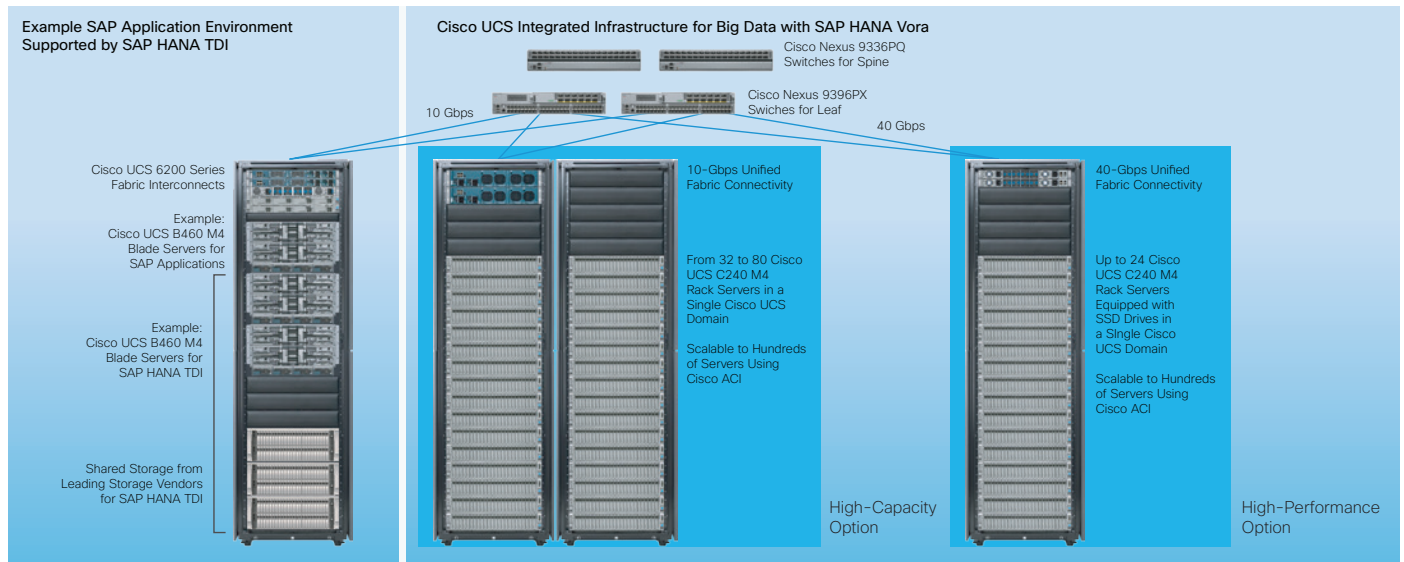


Figure 1 Cisco UCS Integrated Infrastructure for Big Data and Analytics with Cisco ACI for SAP HANA Vora

Improve Business Insight

Cisco UCS Integrated Infrastructure for Big Data with SAP HANA Vora can help your business gain a new level of insight by bringing big data query results into the more static business data stored in SAP HANA. The following are just a few of the ways that the solution can help your staff improve insight into your data:

- **Optimize your supply chain and increase visibility.** View your and your supplier's inventory to quickly adapt to changing sales or production metrics.
- **Detect fraud.** Identify anomalies with easy access to enterprise data, historical data, and contextual trends.
- **Conduct targeted marketing campaigns.** With a complete view of customer feedback and requirements, you can better adjust

offerings and target marketing and sales campaigns for improved customer retention and satisfaction.

- **Improve IT capacity-planning activities.** The capability to access data from multiple sources, analyze records, and explore the use patterns of your IT resources can help you more accurately allocate resources and plan the expansion of your IT infrastructure.
- **Improve patient care.** Access to historical patient data along with genomic and other healthcare test data helps enable you to create a more complete medical profile that supports healthcare alternatives and suggested treatments.
- **Perform proactive maintenance.** Capital-intensive industries (for example, aerospace, oil and gas, pharmaceuticals, and automotive industries) can use improved visibility

into events, alerts, and operational data to maintain infrastructure before problems occur, avoiding catastrophic events that can affect the business.

- **Manage adverse events and product-recall activities.** By quickly correlating affected products and customers, you can get the right information to consumers and reduce business risk.

Help Businesses Accelerate and Optimize Analysis and Operation

By deploying Cisco UCS Integrated Infrastructure for Big Data and Analytics with SAP HANA Vora, you can gain the following benefits:

- **Improve access to data and accelerate decision making.** Your data scientists and business analysts

can access, process, and interpret your enterprise and Apache Hadoop data with a single solution across multiple landscapes. With the capability to compile queries and accelerate data processing across nodes, your staff can accelerate and simplify online analytical processing (OLAP) analysis for thorough and fast results.

- **Simplify management.** Unified management is integrated into the system. This integration simplifies deployment and reduces the risk of configuration errors that can cause downtime. As a result, you can deploy big data servers in minutes, rather than the days or weeks required in traditional environments.
- **Reduce deployment risk.** With a validated solution and guidebook for implementation, your architects and administrators don't have to spend valuable time integrating components into a workable solution, reducing time and risk and eliminating guesswork.
- **Reduce total cost of ownership (TCO).** Cisco UCS Integrated Infrastructure for Big Data and Analytics solutions for SAP HANA Vora are substantially less complex than traditional IT infrastructure. Our superior economics and operations deliver direct benefits to SAP Applications, SAP HANA, and SAP HANA Vora solutions. Our customers

report up to 84 percent shorter provisioning times, 77 percent less cabling, 61 percent lower management costs, and 54 percent lower power and cooling costs.

We Work Together to Deliver Innovative Big Data Solutions

As global technology leaders and co-innovators, Cisco and SAP are uniquely positioned to provide high-quality, innovative products to your organization. Our scalable, highly secure, end-to-end solutions can help you transform the ways that people connect, communicate, and collaborate.

In a joint research and development lab that supports co-innovation with customers, Cisco and SAP engineers are working together to test real-world applications and environments. We have set up a [multimillion-dollar customer lab](#) with more than 100 nodes, 3 petabytes (PB) of storage, and an automated, policy-based infrastructure so that customers can test and scope new solutions with real data in a state-of-the-art environment.

Cisco UCS Integrated Infrastructure for Big Data and Analytics

Cisco UCS Integrated Infrastructure for Big Data and Analytics includes computing, storage, connectivity, and

unified management capabilities to help companies manage the immense amount of data they collect today. It is built on Cisco UCS infrastructure, using Cisco UCS fabric interconnects and Cisco UCS C-Series Rack Servers and S-Series Storage Servers. This architecture is designed specifically for performance and linear scalability for big data workloads.

Conclusion

Cisco UCS Integrated Infrastructure for Big Data and Analytics with SAP HANA Vora provides robust, interactive analysis capabilities, adding enterprise context to big data implementations.

Cisco and SAP innovations help you unlock the intelligence in your data and interpret it with a new contextual dimension for insight that helps you achieve a sustainable competitive business advantage.

For More Information

For more information about Cisco UCS Integrated Infrastructure for Big Data, visit <http://www.cisco.com/go/bigdata>.

Visit the Cisco UCS Big Data Design Zone at http://www.cisco.com/go/bigdata_design.

For more information about SAP solutions with Cisco UCS, visit <http://www.cisco.com/go/sap>.



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