

Cisco UCS Mini for SAP and SAP HANA



Benefits

- Unites computing, networking, and management resources in a single platform for SAP and SAP HANA, with a 96 percent reduction in employee time lost due to hardware downtime
- Simplifies infrastructure management, with a 68 percent reduction in staff time needed for server management, an 83.8 percent reduction in time needed for server deployment, and a 368 percent return on investment (ROI) over a 5-year period¹
- Enhances application performance, with a 96 percent reduction in employee time lost due to hardware downtime²
- Decouples scalability from complexity
- Accelerates IT delivery to the business
- Provides a solution that is fully optimized for virtual and heterogeneous SAP environments
- Provides a scalable entry point for SAP HANA single-node solutions

¹ Source: IDC White Paper, sponsored by Cisco, [The Business Value of Cisco UCS as a Platform for SAP HANA and Other SAP Mission-Critical Applications](#), September 2014

² Ibid.

Cisco UCS Mini: Full-Power Cisco UCS in an All-in-One Package

Cisco UCS® Mini is a total computing solution that delivers enterprise capabilities in a small, efficient form factor for SAP environments and for entry-level single-node SAP HANA solutions.

Cisco UCS Mini for SAP and SAP HANA can easily scale to meet all the business needs of small and medium-size enterprises.

Cisco Unified Computing System™ (Cisco UCS) solutions for SAP and SAP HANA are substantially less complex than traditional solutions and are designed to interoperate with the data center you have today. Using industry-standard architecture and recognized best practices, Cisco® solutions don't require any special IT processes to incorporate or maintain them in your data center. Cisco solutions are designed to support data center readiness requirements, including high availability, reliability, and business continuance. Eighty percent of SAP customers are also Cisco customers.

Cisco and SAP Alliance

As global technology leaders, Cisco and SAP are uniquely positioned to provide high-quality, innovative products to customers. Together, Cisco and SAP offer differentiated, scalable, highly secure end-to-end solutions. With SAP Applications on Cisco UCS, you can reduce deployment risk, complexity, and total cost of ownership (TCO). These combined solutions can transform the way people connect, communicate, and collaborate.

Solution Overview

- Computing and storage integration
 - Six-rack-unit (6RU) rack-mount chassis
 - Up to eight blade servers and seven rack servers
- Integrated networking
 - Enhanced Small Form-Factor Pluggable (SFP+) for 1- or 10-Gbps connectivity
 - Easy connectivity with end-host mode
- High availability
 - Hot-pluggable redundant power (N + N, N + 1, and N support) 100 to 120V, 200 to 240V, and -48V support
 - Redundant network connectivity and redundant fans



- Management
 - Systems management capabilities with full-featured Cisco UCS Manager
 - Cisco UCS Central Software for multisite management
- Storage
 - Support for EMC VNX, NetApp FAS, Nimble Storage, Cisco UCS Invicta™ Series Solid State Systems, and others
 - Small Computer System Interface over IP (iSCSI) and Fibre Channel with SAN, LAN, or direct-attached storage (DAS) connection

Solution Design

Use Cisco UCS Mini for SAP and SAP HANA (Figure 1).

A full chassis with eight Cisco UCS B200 M4 Blade Servers and Intel® Xeon® processor E5-2699v3 CPUs yields a SAP Application Performance Standard (SAPS) score of up to 689,872. A midsize company with a standard three landscapes for a few SAP business applications requires a SAPS score of about 200,000, so Cisco UCS Mini can easily meet business needs. Large enterprises need a SAPS score of about 400,000.

Two Cisco UCS C220 M4 or C240 M4 Rack Servers complete the solution hosting the entry-level SAP HANA appliance using SAP HANA Tailored Datacenter Integration (TDI) for production and development landscapes and high availability and disaster recovery. The maximum database size today is 768 GB. According to SAP, 80 percent of all customer databases will be smaller than 1 terabyte (TB) after compression.

Figure 1. Cisco UCS Mini Solution for HANA with Cisco B200 Blade Servers and C240 M4 Rack Servers



Why Cisco UCS Mini for SAP and SAP HANA?

- Fast and easy to deploy, whether you are implementing SAP or SAP HANA
- Record-setting performance with more than a hundred performance records for industry-standard benchmarks
- Radically simplified solution that is less complex than traditional solutions and can quickly integrate into your current environment
- Simplified, cost-effective scaling, providing more deployment flexibility and scalability
- Lower management costs with Cisco UCS unified management integrated into the system

SAPS Performance Examples

Table 1 provides examples of SAPS performance using Cisco UCS SmartPlays.

Table 1. SAPS Performance Examples Using Cisco UCS SmartPlays

Cisco UCS SmartPlay Select	SAPS
Cisco B200 M4 Advanced 1 UCS-SPL-B200M4-A1	62994
Cisco B200 M4 Advanced 2 UCS-SPL-B200M4-A2	60300
Cisco B200 M4 Advanced 3 UCS-SPL-B200M4-A3	57600
Cisco B200 M4 Advanced 4 UCS-SPL-B200M4-A4	49160
Cisco B200 M4 High Core 1 UCS-SPL-B200M4-C1	73168
Cisco B200 M4 High Core 2 UCS-SPL-B200M4-C2	70900
Cisco UCS Mini Infrastructure Bundle 8 x Cisco B200 M4 Advanced 1	503952
Cisco UCS Mini Infrastructure Bundle 8 x Cisco B200 M4 High Core 1	585344

For More Information

- To learn more about Cisco UCS Mini, visit <http://www.cisco.com/go/ucsmini>.
- To learn more about Cisco UCS and SAP environments, visit <http://www.cisco.com/go/sap>.