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Power SAP HANA with the Cisco UCS X-Series Certified by SAP

What if you could start today with a small-to-medium SAP HANA implementation with the knowledge that you could grow your business with that platform for years?

Electronic data is growing at roughly 96 percent per year due to the accelerating adoption of digital technologies. Increasing data means more infrastructure in the form of more memory to hold larger data sets, faster processors to perform queries and analyze data more quickly, and always-on availability for round-the-clock access by customers. You need a platform that makes growth easy. A platform that has monitoring and management to deliver visibility and flexible use of resources. A platform that is easy to deploy and has a small footprint. You need the Cisco UCS® X-Series Modular System with Intersight™.

Highlights

- Reduce risk with an SAP HANA-certified appliance on a modular system

- Simplify resource management

- Scale with your business needs

- Gain confidence with a future-ready solution that supports you now and well into the future

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Cisco UCS X-Series for SAP HANA

The Cisco UCS X-Series Modular System is the first that is exclusively managed through the Cisco Intersight platform. It helps you simplify your data center with cloud-operated infrastructure that can respond at the speed and scale of your business. With Cisco Intersight, you gain intelligent visualization, optimization, and orchestration for all of your applications. It is an adaptable system that can support SAP HANA and provide a consolidation platform that provides better performance, automation, and efficiency. It's a system engineered for the future so you can embrace emerging technologies while reducing the risk of obsolescence.

Simplify and reduce costs

Cisco UCS X-Series takes the best of both Cisco UCS blade and rack servers and melds them into a single system. It has the cost savings, smaller footprint, and shared resources of a blade server with the I/O expansion and flexibility of a rack server. And it's all managed through Cisco Intersight software. This makes your SAP HANA infrastructure cloud operated, with management from a single interface regardless of location.

You can take advantage of the benefits of running SAP HANA on the Cisco UCS X-Series in both

Why X-Series for SAP HANA?

- This SAP HANA scale-up certified appliance gives you the flexibility to incorporate advantageous new technologies as they become available.

- Both appliance and TDI deployments can be configured to perfectly fit your SAP HANA requirements.

- Powerful new 2-socket blade servers support some of the medium-size SAP HANA workloads that previously required 4 sockets.

- Improved average performance increase of 1.46x over prior generation processors means faster SAP HANA queries and the capability to support up to 33 percent larger SAP HANA databases when using the appliance deployment model.

- Size your infrastructure to support up to 12 TB of memory using the TDI deployment model. Take advantage of the benefits of combining persistent memory with SAP HANA, including rapid startup and recovery following reboots due to faster data load times.
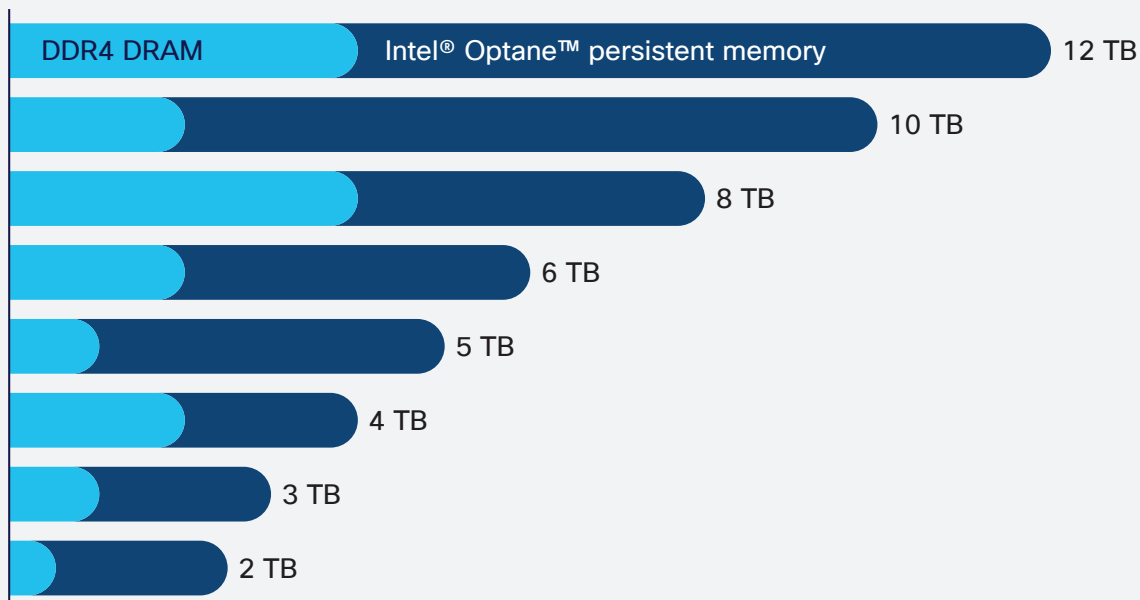

Figure 1.   Total memory size options for SAP Tailored Datacenter Integration deployment

It doesn't get simpler than this:

The Cisco UCS X9508 Chassis is ready to house technology for today with an approach that embraces the future. Just slide into the chassis what you need today. Embrace the future without needing a forklift.

Our chassis is free from what we call parasitic hardware—switches and management modules that must be purchased, configured, powered, cooled, and maintained. They draw from the chassis power and cooling budget while reducing the space allocated to servers. The chassis' midplane-free design eliminates limitations on future interconnect technology.

appliance and SAP Tailored Datacenter Integration (TDI) models. Both models begin with the Cisco UCS X210c M6 Compute Node installed into a Cisco UCS X9508 Chassis. The advanced performance of 3rd Gen Intel Xeon® Scalable processors enables SAP HANA deployments to use even more memory per server (see sidebar on previous page):

- **Appliance model:** Deployed as a SAP HANA-certified appliance, the X210c supports up to 4 TB of memory using the six internal NVMe drives.
- **TDI model:** The TDI model is the predominant deployment model because it opens up the possibility of making your deployment even more future ready. With TDI you can use your own enterprise storage nodes and/or add Intel Optane persistent memory (Figure 1). This approach supports up to 12 TB of memory.

Simplify your data center

When you choose the Cisco UCS X-Series with Intersight for your SAP HANA infrastructure, you also open the door to transforming your data center to one that—with a cloud-operating model, greater visibility into your infrastructure, and application performance—can adapt to the uncertain demands of modern applications, and is ready to embrace the new technologies the future will bring.

- **Cloud operating model:** The Cisco UCS X-Series brings you an operating model with wide-ranging scale that is supported by flexible infrastructure that can shape itself to match the

needs of your SAP HANA database. For the rest of your data center, we provide automated solution deployment capabilities so you can set policies to guide your route and let automated management get you there. This is the way to relieve your organization of the increasing burden of complexity. Cisco Intersight delivers consistent management across all hybrid-cloud infrastructure that can also deploy, manage, and optimize modern, cloud-native applications deployed in your private cloud and seamlessly move applications into the public cloud.

- **Visibility:** SAP HANA is a mission-critical database, where visibility is key. With Cisco Intersight you can revolutionize how you manage application resources across any environment with real-time, full-stack visibility to help ensure performance and better cost control. Across all of your infrastructure you can monitor physical servers, hypervisors, Kubernetes clusters, and serverless and application components anywhere they are, understanding all the connections, to stay ahead of issues and avoid lengthy troubleshooting when problems arise. Integrate with Cisco® AppDynamics® software to combine real-time awareness of business outcomes and user experience with infrastructure automation.

- **Standardized, adaptable infrastructure:** Building per-application infrastructure has resulted in a set of unique infrastructure, application, and tool silos. In a rapidly changing world, your staff can't continue to build, deploy, and manage infrastructure differently for each new purpose. It lacks scale. Cisco UCS X-Series managed with Cisco Intersight

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Figure 2. The Cisco Intersight platform delivers infrastructure lifecycle management in a software-as-a-service model

eliminates silos and deploys applications with standardized, common infrastructure that acts more like fluid pools of resources rather than fixed, inflexible silos that inhibit resource sharing and change. You should be able to change resource allocation with the speed and ease of software. Automation is the key to success in a hybrid-cloud world, and Cisco Intersight provides a consistent, automated way to manage both on-premises cloud-based infrastructure.

· **Future-ready system:** Embrace emerging technologies and reduce risk with a modular system engineered to support future

generations of processors, accelerators, and interconnects with management enabled by a constant stream of new capabilities delivered as software as a service (SaaS) through Cisco Intersight.

Cisco Intersight

The Cisco Intersight platform is a software-as-a-service (SaaS) infrastructure lifecycle management solution that delivers simplified configuration, deployment, maintenance, and support (Figure 2). With a SaaS model, you always use the most up-to-date management software,

Consumption model

Is your capital spending already too high? Cisco Plus enables you to build your own private cloud where metered consumption facilitates internal billing and promotes rapid scaling.

· **Simple.** We offer flexible delivery models tailored to your unique organization, so you can achieve your business goals. We simplify IT deployments with a cloud-first approach. And we provide choice, allowing you to pay as you use and change as you need.

· **Predictable.** Highly secure and predictable services deliver business results and consistent experience. We help you make your investments future ready, with a partner you can trust.

· **Intelligent.** Services adapt to customer requirements using insights and automation to optimize use, resolve issues quickly, and help protect your business.

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Learn more

Discover how the Cisco UCS X-Series can help you do more with your SAP HANA deployment by exploring the following resources:

- Cisco UCS X-Series solution overview
- Cisco Intersight platform solution overview
- SAP and Cisco Solutions
- Cisco UCS X-Series
- Cisco Intersight

you don't have to "manage managers," and you don't have to worry about incompatible versions. With Cisco Intersight, you get all the benefits of SaaS delivery combined with full lifecycle management. Intersight can manage distributed servers and third-party storage systems across data centers, remote sites, branch offices, and edge environments.

The Cisco Intersight platform is designed to be modular, so you can adopt services based on their individual requirements. The platform dramatically simplifies IT operations by bridging applications with infrastructure, providing visibility and management from bare-metal servers and hypervisors to serverless applications, thereby reducing costs and mitigating risk. This unified SaaS platform uses an open REST API to provide a common interface that integrates with third-party platforms and tools.

Cisco Intersight offers an always-on connection to the Cisco Technical Assistance Center (TAC), constantly monitoring your environment to help identify configuration issues before they become problems. It watches for anomalous infrastructure events, capturing log information and providing centralized alerts about failures or policy violations. It can automatically generate and forward Cisco TAC support cases when required

and even raise service requests and return material authorizations (RMAs) automatically.

Be successful with Cisco as a partner

The only constant is change. With the Cisco UCS X-Series for SAP HANA, we make that change, and growth, simpler. We give you a cloud operating model where you define policies and the management software enacts those policies to define infrastructure. We give you visibility into your environment and proactively monitor for potential issues. We give you standardized, common infrastructure that acts more like fluid pools of resources rather than fixed, inflexible silos that inhibit resource sharing and change. And we give you the ability to embrace emerging technologies and reduce risk with a modular system engineered to support future. We are dedicated to making your SAP HANA deployment, both now and into the future, a success.

Find out more

Contact your Cisco sales representative to learn more about this excellent appliance and TDI solution for SAP HANA.