

Cisco Bridge to SAP HANA Appliance

Introduction

A Cisco® Bridge to SAP HANA Appliance is an SAP-certified appliance used to provide high-performance, cost-effective business intelligence. The appliance family offers different models to accommodate varying scales. These appliances differ from standard appliances in this category because they can be implemented as SAP® Business Warehouse Accelerator (BWA) appliances and transformed into SAP HANA scaleout appliances; and they include advanced automation software that increases value for IT and provides a better experience for business users.

These appliances allow companies that want to implement SAP HANA but are not ready — such as companies using SAP Business Warehouse (BW) releases earlier than 7.3 — to implement SAP BWA and get the benefits of high-performance in-memory queries. When the companies are ready to implement SAP HANA, the Cisco Bridge to SAP HANA appliances are transformed into SAP HANA scaleout appliances, preserving up to 90 percent of initial investment.

Each appliance includes SAP IT Process Automation by Cisco software, which assists IT in the operation and maintenance of the appliance. This software reduces downtime by checking hardware components and monitoring CPU, memory, and average index read time at the blade level, and alerting IT when usage nears thresholds. Process automation assists IT in rapidly identifying and resolving issues so that service is not compromised, and high-performance business intelligence remains available to business users.

Ultimately, these appliances allow IT to address immediate business demands for high-performance business intelligence queries and reports while IT prepares for SAP BW on SAP HANA. It also helps the **Basis Team** by reducing the operation and maintenance load.

Product Overview

The Cisco Bridge to SAP HANA Appliances include:

- Cisco Unified Computing System™ (Cisco UCS®) B200 M3 blades with E-2670 processors
- Cisco Nexus® 5548UP Switches
- Solid state drive (SSD) storage
- The SAP BusinessObjects Explorer Accelerated software bundle, which comes installed on the appliance directly by Cisco or in conjunction with your partner, for easier business user access
- SAP IT Process Automation by Cisco

The SAP IT Process Automation by Cisco software includes SAP-specific knowledge and workflows that the system uses to orchestrate many tasks, including workload monitoring, monitoring of subsystems and components, CPU alerts, memory, and throughput thresholds for TREX services. It also includes automated configuration of return materials authorization (RMA) parts, so they become part of the cluster in minutes instead of days.

The available appliance models differ physically based on chassis, blades, and memory. Table 1 summarizes the basic hardware configurations of the appliances.

Table 1. Cisco Bridge to SAP HANA Appliances

Product Number	CBI-SSMT-E1T-K9	CBI-SSMT-S1T-K9	CBI-SSMT-M1T-K9	CBI-SSMT-M2T-K9*	CBI-SSMT-M3T-K9*	CBI-SSMT-L1T-K9*	CBI-SSMT-L2T-K9*
Features	<ul style="list-style-type: none"> • 3 blades • 1 chassis • 96G/blade • E5-2670 • Automation** 	<ul style="list-style-type: none"> • 6 blades • 1 chassis • 96G/blade • E5-2670 • Automation** 	<ul style="list-style-type: none"> • 8 blades • 1 chassis • 96G/blade • E5-2670 • Automation** 	<ul style="list-style-type: none"> • 12 blades • 2 chassis • 96G/blade • E5-2670 • Automation** 	<ul style="list-style-type: none"> • 16 blades • 2 chassis • 96G/blade • E5-2670 • Automation** 	<ul style="list-style-type: none"> • 21 blades • 3 chassis • 96G/blade • E5-2670 • Automation** 	<ul style="list-style-type: none"> • 40 blades • 5 chassis • 96G/blade • E5-2670 • Automation**
Data	480 GB	1.2 TB	1.6 TB	2.6 TB	3.6 TB	4.8 TB	9.1 TB
Storage	SSD, EMC VNX5300	SSD, EMC VNX5300	SSD, EMC VNX5300	SSD, EMC VNX5300	SSD, EMC VNX5300	SSD, EMC VNX5300	SSD, EMC VNX5300

*Not currently available

**SAP IT Process Automation by Cisco

Features and Benefits

Automation for SAP Business Intelligence

The SAP IT Process Automation by Cisco software includes preconfigured workflows that help ensure peak SAP BWA or SAP HANA performance while decreasing downtime.

Examples of vital procedures that can be automated to save time and run consistently include data integrity checks, index reorganization, information package error analysis, and services statistics monitoring. You can also automate sizing, planning, tracking, and forecasting. Many corrective actions for alerts and optimization can be automated. This automation is integrated with the hardware to provide provisioning that proactively prevents service-level interruptions, which enhances business user experience, saves time, and reduces risk (see Table 2). The result is that administration and maintenance are easier for the Basis Team.

Table 2. Process Automation Benefits

Cisco Process Automation Features	IT Benefits	Business Benefits
Workload monitoring: CPU, memory, average index read time, and more, at the blade level	Provides IT with visibility to quickly isolate and identify application service performance degradation trends for each application host.	Help reduce resolution time in complex distributed scale out environment where a single node can comprise instance level performance.
Automated maintenance, including hardware checks, firmware updates and file system validation	Helps ensure that the appliance is always up-to-date, in compliance with SAP's latest requirements.	Helps eliminate service interruptions due to issues that have been remediated in new releases.
Configuration management assurance for all appliance components	Checks to ensure that software configurations have not been inadvertently changed.	Helps ensure stability and uninterrupted service through elimination of configuration issues.
Data services availability and error monitoring for more reliable ETL	Notifies IT upon data services errors so that they can be rectified and the ETL runs restarted.	Helps ensure that info cubes are up to date for queries and reports.
Proactive monitoring for BWA subsystem components status	Notifies IT upon component failure or failover, so that it can be remediated as quickly as possible.	Helps eliminate service interruptions due to component failures.
Monitoring query execution response time for the query execution BWA query response time	Enables IT to quickly identify degraded query performance and isolate to application server or infrastructure.	Provides 24/7 visibility into query response time service level exceptions with zero IT hours expended and reduces time to resolve query performance issues.
Executing sample queries, recording total execution time and component performance breakdown	Shows IT where time for queries is being spent, so that they can be optimized for better performance.	Faster turnaround for queries and reports. Especially important for business users interacting through BOE.

Cisco Process Automation Features	IT Benefits	Business Benefits
Proactive monitoring of blade TREX services statistics based on thresholds	Detects realtime performance issues affecting indexserver and nameserver processes which can cause degraded query response time.	Help reduce time to resolve issues in complex distributed scale out environment where a single node can comprise instance level query performance.
Alerting on CPU, memory, or throughput thresholds for TREX services	Lets IT know when critical thresholds, such as 50% RAM usage, are getting close, so corrective action can be taken before they impact performance.	Higher and more consistent service levels for queries and reports. Especially important for business users interacting through BOE.
Automated configuration of RMA blades, so they become part of the cluster in minutes instead of days	Eliminates the potential 3-5 day delay in getting an SME who can configure an RMA'd blade to the data center.	Eliminates long delays while replaced components are configured. Especially important for business users interacting through BOE.

A Unified Environment

These appliances are based on Cisco's unified approach to the data center, which brings together compute, network, and storage under a single management fabric. This unified approach makes the appliances and applications not only easier to administer and manage, but it also makes the enterprise knowledge base more accessible across the organization.

Scalable, Simplified Design

The modular architecture lets you adapt the system to align with the needs of your business. The unified hardware architecture uses up to 30 percent fewer components, switches, cabling, and modules, reducing your cost to purchase, manage, power, and cool. As a result, our smallest 3-blade 480 GB appliance can be field-upgradable to a larger appliance, up to our largest 18 TB appliance.

Business Intelligence That Is Easier to Manage, Deliver, and Use

These appliances are essentially optimized solutions designed to help organizations provide business intelligence services immediately to stakeholders who need information in real time to gain insights and make fast decisions. The solutions combine faster methods and technologies with automation to reduce management demands on IT administrators, and make it reasonable and feasible to extend business intelligence services quickly.

Although Cisco Professional Services are not required, Cisco can work with your existing SAP BusinessObjects partner to deliver end-to-end lifecycle services across your business intelligence landscape.

Major Requirements

Although specific planning and sizing is straightforward, actual requirements can vary by enterprise, depending on the environment size of the info cubes. Detailed requirements information is easily obtainable after an initial conversation with a product expert or through an automated sizing assessment. In advance of deployment, details on power, network and interface and requirements can be provided.

Data sheets for the following components of the appliance are available:

- [Cisco Nexus 5000 Series Switches](#)
- [Cisco UCS Blades](#)
- [EMC VNX Storage](#)
- [Cisco Intelligent Automation for BWA](#)
- [Cisco Intelligent Automation for HANA](#)

For More Information

- To download the detailed solution overview document for a deeper understanding of how this product benefits an organization as a whole, visit <http://www.cisco.com/go/sapbwa>.
- To contact Cisco Bridge to SAP HANA experts, you can send email to: sapbw@cisco.com.
- For more information about this or any other Cisco product or service, please visit <http://www.cisco.com>.



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