

Centerity and SUSE®. Bring Next Generation Predictive BSM IT Monitoring to SAP HANA

Innovation through partnership between Centerity and SUSE

Ensuring High Performance and Availability of a Mission-Critical Environment

SAP HANA® is the next generation of SAP® in-memory computing technology. SAP HANA transforms business decision-making with real-time analytics creating actionable intelligence that creates competitive insights and advantages across industries (banking, transportation or retail) and functional domains (trading, commodity hedging or order management). This immediate access to actionable intelligence provides predictive insights that can ultimately determine the success or failure of an organization.

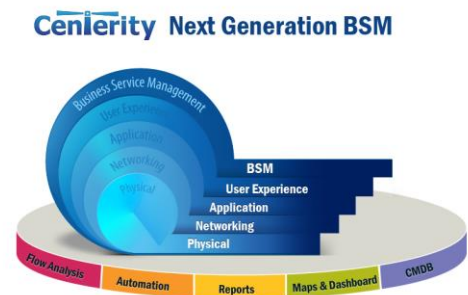
In order to reap the benefits of SAP HANA, a resilient and reliable IT monitoring platform is necessary to ensure that each SAP HANA instance and all its supporting facilities such as networking, storage and servers are functioning optimally while the operating system layer upon which the infrastructure relies is robust and dependable. Furthermore, the supporting IT environment needs the ability to scale without unnecessary complexity and without impacting system performance.

What is clear is that two things are essential. First, in order to ensure that the SAP HANA environment is functioning properly, organizations will need a holistic Business Service Management (BSM) IT monitoring platform that can:

- Give organizations the real-time status of its key business processes in the SAP HANA environment
- Provide predictive, trend, dependency and root cause analysis so that IT can anticipate and mitigate Mean Time to Restore (MTTR) issues

Second, in order to support the large in-memory workloads of SAP HANA, a robust and resilient operating system, SUSE® Linux Enterprise Server for SAP Applications, is needed to ensure the performance and high-availability of the compute

layer. SUSE Linux Enterprise Server for SAP Applications is a preferred platform for the majority of organizations running SAP software on Linux and the recommended and supported operating system for SAP HANA (see figure 1). It gives businesses the price-to-performance options they are currently unable to achieve, reduces installation time for SAP applications from days to hours and increases performance.



Next Generation BSM

There are many monitoring tools on the market today that work reasonably well in targeting single technology silos such as networking, servers or storage. These tools can't show IT administrators and managers how different technologies impact each other because these tools don't capture or correlate all systemic and health metrics across all technical and functional domains. Thus, single-focus technology tools can't show the real-time status or service availability of critical business processes. What is needed is a unifying layer that creates business intelligence across technology and functional domains and presents status in a clear, intuitive way.

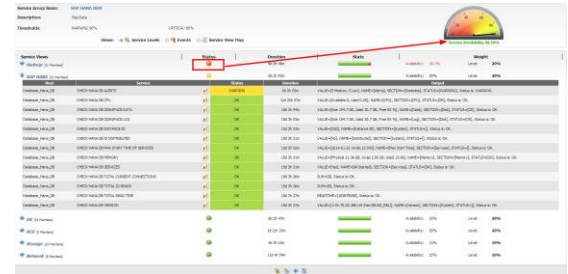
BSM is one of the essential service-centric methodologies that allows IT and business units to create a holistic approach to complex enterprise and carrier services aligning expectations to delivery. The goals of BSM include an up-to-the-minute understanding of all related key

performance indicator (KPI) metrics and how the collective combinations are performing in support of essential business processes. Via BSM, required levels of service availability and performance can be measured in real-time and over time to support both external and internal customers. In this model, both Service Level Agreements (SLA) and Operational Level Agreements (OLA) can be measured and maintained.

Traditionally, attaining the promises of a BSM solution has been elusive. The challenges to fully implementing a comprehensive BSM solution has been the overwhelming costs of acquiring all the single-focus technology tools, integrating and deploying these separate tools plus maintaining the same over time. Bringing together all these silos of data is no small feat. Furthermore, the resulting architecture of these legacy BSMs was neither resilient nor flexible in meeting the needs of dynamic and changing IT environments.

Centerity is the first company to create a next generation, enterprise-class, unified IT monitoring approach that delivers the promise of BSM to enterprise and carrier-class customers in an elegant, cost-effective platform. Centerity's unified software architecture provides a complete set of agent-less and agent-based metric capture methodologies that can provide end-to-end coverage of any type of IT asset from the physical, virtual and application layers to the cloud. These capture methodologies are also extensible such that new technologies can be incorporated rapidly to maintain the holistic, end-to-end approach. Due to this unified software architecture, these new metrics can be shared immediately with all other features within the platform thus making it as dynamic as the environment. Once all of the across-technical and functional-domain metrics are capture and normalized, business intelligence and

business process views can be created through Centerity's BSM service model.



First IT Monitoring Platform Qualified for SAP Solution Environments

In cooperation with SAP Co-Innovation Labs, Centerity brings next generation BSM monitoring capabilities to the entire SAP environment including SAP ERP, SAP Infrastructure and SAP HANA. Due to this effort, SAP deemed “Centerity Monitor as suitable for use in SAP Solution Environments” via its “TR-SYSTEM SW/HW TR System-Level Software or Hardware” testing program. Centerity was the first to *deliver true BSM to the SAP HANA Technology Stack as one of the essential tools* that allows IT and business units to create a holistic approach to complex enterprise services. Now, organizations can align expectations to deliver with the ability to measure levels of service availability and performance for both external and internal customers.

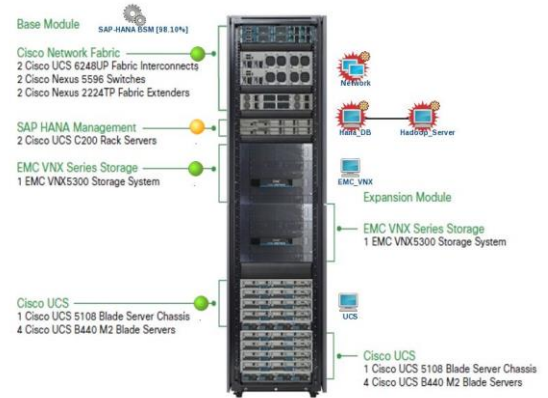
SAP Co-Innovation Labs sought full BSM integration due to the evolving complexity of its service topology involving multiple, hybrid components such as hardware, OS, networking, system, applications and other technologies. Centerity's added value was its ability to rapidly deploy an enterprise class BSM solution based on multi-level SLA monitoring of every component in the application environment (hardware, OS, networking, systems, applications and end-user experience (EUX) including applicable public and

private cloud assets). Centerity was able to rapidly integrate new SAP HANA KPIs into its monitoring solution and provide “out of the box” integrate to existing customer applications, scripts and open-source plug-ins.

SAP’s operational teams were able to gain clear, comprehensive views and control over their critical business processes. Management teams were able to interact with executive dashboards to see the status of critical business processes in real-time. Thus, management could finally know how IT was performing against SLAs and OLAs so that proactive actions could be taken as needed.

Centerity’s comprehensive views helped operations dramatically reduce MTTR. Due to the capture of all KPIs in the environment using both agentless- and agent-based methodologies, IT was able to do predictive, trend, dependency and root-cause analysis for the first time. Centerity became the unifying layer that created real-business intelligence across all technology and functional domains with the ability to present status in a clear, intuitive way. Centerity became the “single pane of glass” to both the management and operational teams.

Centerity’s unified monitoring platform is scalable to any size environment regardless of concentration or geographic dispersion. Centerity’s monitoring nodes can be added infinitely as coverage grows with a management server controlling all monitoring nodes. Centerity’s dynamic Interactive Dashboard Maps and Live Visual Layouts allow for the real-time interaction with monitored objects. Live Visual Layouts can be based on any imported image such as geographical maps, device images, rack layouts or any other image. These dynamic maps and layouts are customizable so that information can be consumed in a natural and intuitive way.



Centerity’s Technical and Operational Advantages

Technology Advantages

- Next generation unified platform architecture including all features and functionality
- End-to-end coverage facilitating BSM
- Core metric capture methodology designed to accept Centerity service packs or user-defined plug-ins facilitating rapid coverage of new or novel technologies
- Open APIs to facilitate rapid and independent operation with third-party and open-source components in a bi-directional way
- Extensive metric capture methodology (agentless and agent based) with data normalization across all technical and functional domains
- Delivered as a single, installable software appliance
- Robust enterprise and carrier class

Operational Advantages

- Rapidly deployable in complex or novel, hybrid environments
- Scalable, flexible and intuitive via the unified platform
- Comprehensive predictive, trend, dependency and root-cause analysis
- Exceptionally short time-to-value (TTV)
- Superior ROI and TCO

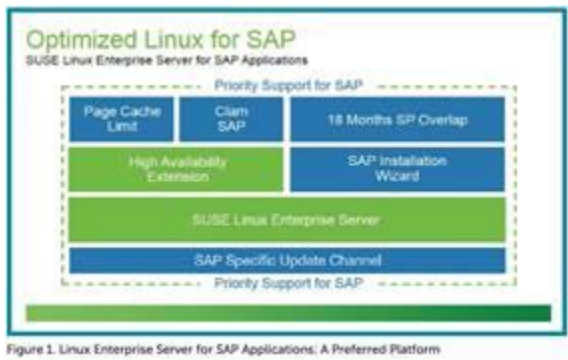


Figure 1. Linux Enterprise Server for SAP Applications: A Preferred Platform

SUSE Linux Enterprise Server for SAP Applications

SUSE Linux Enterprise Server for SAP Applications is a preferred platform for many of the largest organizations in the world running SAP software on Linux. A direct result of the close collaboration between SAP and SUSE, this solution maximizes uptime and availability, reduces costs and improves performance. It also provides an extended service pack support lifecycle to ease administration and a dedicated update channel and optional 24x7 priority support from SAP and SUSE. SUSE Linux Enterprise Server for SAP Applications is based on SUSE Linux Enterprise technology, a highly reliable, scalable, secure and optimized server operating system that is built to power both physical and virtual mission-critical workloads.

SUSE Linux Enterprise Server gives businesses the price-to-performance options that can't be achieved otherwise. Not only does it cut costs and reduce installation time for SAP applications, it substantially increases performance. SUSE Linux Enterprise Server for SAP Applications is the recommended and supported OS of choice for SAP HANA. Uniquely optimized for SAP solutions, it enables the high performance of large workloads and mission-critical applications. Certified by SAP, it's designed to work with SAP HANA, ensuring an optimal configuration is delivered to every end user.

SUSE Linux Enterprise Server for SAP Applications brings the latest reliability and availability features. It is able to identify innovation proactively and bring enhanced capability to existing and new hardware and processor platforms. SUSE provides recovery solutions in situations that would normally conflict with the operating system where these features were not enabled.

Next Generation Partners—Centerity and SUSE

Business challenges are dynamic requiring collaboration across corporate boundaries. Both Centerity and SUSE have open architectures to facilitate collaboration with each other and other technical partners. The goal of Centerity and SUSE is to optimize the operating environment for all customers regarding its big data layer technology stacks (SAP HANA, Hadoop, MongoDB, NoSQL).

The Centerity and SUSE alliance has made the operating environment more robust and resilient to ensure the highest level of performance and availability for every customer's analytic and database needs. The core businesses of both companies has been growing at a rapid pace to address the needs of mid- to large-sized enterprises in every vertical market including carriers, Managed Service Providers (MSP) and Cloud Service Providers (CSP).

Both Centerity and SUSE continue to collaborate to deliver enterprise and carrier-class solutions that meet today's and tomorrow's challenges of evermore complex IT environments.

Centerity

Centerity is an ongoing member and part of the SAP Startup Focus Program. The SAP Integration and Certification Center (SAP ICC) has approved

Centerity as “Suitable for use in SAP Solution Environments” under its “TR-SYSTEM SW/HW TR System-Level Software or Hardware” testing and qualification program. Centerity is also an ongoing member and part of the SUSE Ready Program.

SUSE

SUSE has a long-standing and close partnership with SAP. SUSE innovates and collaborates with SAP on advancing the capabilities of SAP HANA at SAP’s Linux Lab. SUSE Linux Enterprise Server is the only operating system optimized for all SAP software solutions and is the number one Linux platform for SAP applications.

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