**SOLUTION BRIEF**
**Intel® Xeon® Processor E7 Family**
Big Data
Virtualization

# Big service

**Unisys offers big data transformational services based on Cisco UCS* technology powered by the Intel® Xeon® processor E7 family**

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"The Intel® Xeon® processor E7 family delivers performance that is ideal for demanding, data-intensive workloads such as those envisaged with SAP HANA."

Nils Krugmann
Practice Manager SAP
Unisys

## CHALLENGES

- **Data analytics.** Unisys has launched transformational services for SAP HANA (software which offers real-time analytics for big data) as part of its data center transformation capabilities
- **Hardware platform.** To support these services, Unisys needed a hardware platform that would provide the needed processing muscle combined strong virtualization features

## SOLUTIONS

- **Proof of Concept (PoC).** Unisys decided to run a PoC on the Cisco Unified Computing System* (Cisco UCS) platform
- **Powerful processors.** The platform was powered by the Intel® Xeon® processor E7 family

## IMPACT

- **Strong partnership.** Together, Cisco UCS and the Intel Xeon processor E7 family provided simplified management and powerful, energy-efficient performance to deliver SAP HANA as a transformational service to Unisys customers
- **Planned services.** Unisys will adopt the Cisco/Intel platform to offer SAP HANA* via transformational services that help customers on their journey of transforming and modernizing their IT landscapes
- **Revenue growth.** As existing clients begin their data center transformation, Unisys anticipates that the ability to analyze Big Data will be a key requirement. Being able to offer transformational services for SAP HANA will lead to new revenue streams for Unisys, while the ability to analyze Big Data will be a key benefit to customers

### Data center transformation

Unisys is a worldwide information technology (IT) company that provides a wide portfolio of services, software and technology. It has approximately 22,500 employees, involved in designing, building and managing mission-critical environments. These endeavors span the gamut of IT, ranging from data center transformation and outsourcing and industry-specific technologies to application modernization and security.

With the explosive growth of data in many organizations and a widespread move towards big data analysis, Unisys wanted to develop a technology infrastructure that would allow its clients to unearth the hidden value in apparently random and unstructured data.

One such technology was SAP's HANA , a platform for real-time analytics and applications based on SAP's in-memory computing technology. Big data is essentially datasets that exceed the abilities of commonly used tools to process and analyze. One of the features required to extract value from unstructured data, or big data, is the ability to analyze streams of data in real time.

In-memory computing is a data management system that relies on main memory for computer data storage as opposed to traditional database management systems that use a disk storage mechanism. In-memory systems are faster and simpler.

SAP HANA enables users to make smarter, faster decisions with real-time analysis and reporting. It can dramatically enhance business processes with flexible and faster reporting and real-time synchronization with business processes. As such, it's an ideal platform for big data analysis.

Nils Krugmann, SAP practice manager for Unisys, said: "Within our SAP practice we combine SAP with our IT expertise and apply the best-fitting technology for a customer's problems. SAP HANA meets big data requirements and, as the big data trend continues to grow, we believe HANA sales will increase considerably."

# The Intel® Xeon® processor E7 family is ideal for data-intensive workloads

## Virtualization

To develop a SAP HANA offering for its clients, Unisys needed to assess the most suitable hardware platform on which to run the software. In addition, the ability to virtualize servers with huge I/O demands was also important.

Big data datasets can typically reach terabytes (TB), petabytes (PB) and even exabytes (EB) in size. HANA is positioned as a tool for big data workloads and can support analysis of uncompressed data. Server virtualization available on the same platform would lighten the total cost of ownership (TCO) load by enabling more cost-effective use of hardware.

Krugmann added: "The next two years are not only going to be about big data, but also about making it available on handheld devices. There will be a move to integrating data analysis onto mobile handsets. We therefore wanted a platform that would provide the analysis in the background, but also have the capability to deliver the results to different mobile devices."

Cisco UCS is an Intel® architecture data center platform that consists of server hardware, virtualization support and management software. The driving dynamic behind the system is to reduce TCO and improve scalability by integrating different components into a cohesive platform that can be managed as a single unit.

## Powerful combination

Using a Cisco UCS blade server, powered by the Intel Xeon processor E7 family, Unisys launched a PoC to evaluate the performance of SAP HANA on this platform.

The PoC revealed that several aspects of the Cisco UCS platform, powered by the Intel Xeon processor E7 family, made it an ideal platform to launch an SAP HANA offering. But it is also a perfect combination for infrastructure as a service (IaaS) HANA offerings which will start to hit the marketplace in the next year.

A key benefit of the Cisco UCS platform is the concept of stateless computing. Each compute node has no set configuration and can be configured on the UCS manager in a service profile and applied to the servers. This enables consistent configuration and easy repurposing, with a new profile applied within a matter of minutes.

Krugmann said: "The platform has strong virtualization ability and, together with the Intel Xeon processor E7 family, it offers a powerful combination of technologies for a cloud-based service. The Intel Xeon processor E7 family is very powerful and, in a fully virtualized environment, it's possible to consolidate more and more. This clearly has a positive effect on energy consumption.

"The Intel Xeon processor E7 family delivers performance that is ideal for data-intensive workloads such as those envisaged with SAP HANA," he continued. "Improved scalability and increased memory and I/O capacity offer better support for in-memory databases and allow us to adapt to changes in short-term business demands and address requirements for longer-term business growth."

### Lessons learned

As the big data trend continues Unisys believes SAP HANA sales will increase considerably. A PoC showed that a Cisco UCS platform, powered by the Intel Xeon processor E7 family, is the ideal platform on which to launch HANA as a managed service. It has a strong virtualization capability which has a positive effective on energy consumption, as well as improved scalability, increased memory and I/O capability which will allow Unisys to adapt its HANA managed service offering to changes in business demand.

## Managed service

The PoC met and exceeded the criteria of Unisys. As a result, the company has decided to integrate SAP HANA into its transformational services portfolio. The service will target medium-sized and large organizations.

Krugmann added: "In every area of industry, whether it's retail, manufacturing, transport or logistics, the current focus is how to gain value from big data. We believe an IaaS offering based on Cisco UCS, the Intel Xeon processor E7 family and SAP HANA will provide a powerful platform to harness the value of big data. When customers upgrade their data center operations, the SAP HANA option will prove compelling and we're expecting significant uptake."

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