

CASE STUDY

Intel® Xeon® processor E7-8867L

Manufacturing

Enterprise Reliability, Big Data Analytics



Industry conglomerate deploys dynamic server platform

Cisco UCS running on servers based on Intel Xeon processor E7-8867L enables ESSAR to access data and analytics in real time



The ESSAR Group is a multinational conglomerate and a leading player in the sectors of steel, oil and gas, power, communications, shipping ports and logistics, construction and minerals. With operations in more than 20 countries across five continents, ESSAR employs 70,000 people and has revenues of about US\$15 billion. Headquartered in Mumbai, ESSAR has more than 26 offices across India.

CHALLENGES

- **Improve access to data.** Ensure quicker access to real-time operational information.
- **Improve planning and forecasting.** Enable crunch data, and uncover trends and patterns to help in business planning and decision making.
- **Strengthen IT investments.** Need to strengthen existing investments in SAP software and gain real-time visibility of the business across verticals.

SOLUTIONS

- **Deploy Cisco Unified Computing System (UCS).** Utilize Cisco UCS server platform to support the implementation of SAP HANA (High Performance Analytic Appliance).
- **Utilize Intel Xeon processor E7-8867L.** Deploy servers running on Intel Xeon processor E7-8867L, which provides industry-standard infrastructure for enterprise critical applications.
- **Allow real-time access to data with SAP HANA.** With SAP HANA optimized on the Cisco UCS platform, data is brought within the reach of decision makers in seconds, enabling innovative new applications and combining high-volume transactions with analytics.

IMPACT

- **Quick access to data/information.** Enabled quick access to data and information, accelerating real-time decision making.
- **Accelerated business performance.** Achieved dramatic improvement in planning, forecasting and pricing optimization.
- **Reduced TCO.** Lowered TCO due to stateless computing capabilities with dynamic server provisioning, unified fabric and comprehensive management across both physical and virtual environments.
- **Simplified server design.** Simplified design of the Cisco servers reduced the number of components that need to be powered and cooled compared to traditional blade server environments.

Cisco UCS running on Intel® Xeon® processor E7-8867L helps ESSAR bring all relevant data to decision makers within seconds, in an understandable and user-friendly format, for real-time decisions



“The implementation of Cisco UCS running on servers based on Intel Xeon processor E7-8867L over SAP HANA has helped ESSAR accelerate real-time decisions and dramatically improve business performance while reducing total cost of ownership (TCO).”

*Jayantha Prabhu
Chief Technology Officer
The ESSAR Group*

Improving server platform

Given its presence across multiple sectors, ESSAR generates a huge amount of business data on a daily basis. With different systems for different lines of businesses, the amount of data that ESSAR analyzes for reporting amounts to a whopping 3TB. The key challenge in analyzing such huge amount of data is the capability to crunch data within a defined time frame.

While it was possible to get the operational reports, real-time analytics was a challenge and ESSAR needed access to real-time operational information much more quickly. There was also a need to react faster to events impacting operations, uncover trends and patterns in an ad hoc, empowered manner, and improve planning and forecasting.

ESSAR also felt the need to strengthen existing investments in SAP software to gain real-time visibility into businesses across all verticals. Furthermore, ESSAR needed to augment existing investment in SAP software to allow users to analyze data by customer, region or product whether in the office or while traveling.

Access to consistent real-time data was critical to improve forecasting abilities as well as provide intelligence on how to redirect the business as needed based on events, customer relationships, product plans and market variations. There was a business need for an application that will aid in quick decision making as existing applications could not provide the same efficiency. This solution also has to be user-friendly whilst accelerating business performance and reducing TCO.

Enhanced server platform

Based on its needs, ESSAR evaluated a number of solution platforms and finally decided to go with Cisco UCS along with SAP HANA appliance configuration. The Cisco UCS server platform is designed with the performance and reliability needed to power memory-intensive, mission-critical applications and virtualized workloads. SAP and Cisco have optimized SAP HANA on the next-generation Cisco UCS server platform, giving SAP HANA customers a true competitive edge on a server platform designed to overcome today's challenging business environments.

Cisco UCS serves as an ideal server platform for SAP HANA since it provides a unique Intel® Xeon® processor E7-based industry-standard infrastructure for enterprise critical applications. The Cisco UCS platform offers stateless computing capabilities with dynamic server provisioning, unified fabric, and comprehensive management across both physical and virtual environments for reduced TCO.

For systems that are part of the architecture that supports the SAP HANA installation, the Cisco UCS platform offers hardware-state abstraction that transparently integrates server, storage, and networking resources used for any application, virtualized or not, thus eliminating the waste that can be caused by dedicating pools of resources to a specific purpose. In addition, Cisco UCS Manager makes controlling and reassigning resources fast and easy. SAP's In-Memory Computing technology provides exceptional speed to power analytics while Cisco UCS provides

an agile, scalable, highly available, and cost effective industry-standard infrastructure platform. SAP HANA enables customers to get information immediately - without the delay of typical enterprise data warehouses – by building on the benefits of the Cisco UCS platform.

Cisco UCS provides the highest configuration of SAP HANA appliance and dramatically improves application response time with persistence, high performance and high capacity. It helps minimize application latency to deliver groundbreaking improvements to computing performance, while greatly reducing hardware infrastructure, maintenance, floor space, and energy costs. For ESSAR, the installation also helped minimize latency and eliminate I/O bottlenecks by integrating with host servers as a memory tier extension.

High-performance, cost-effective server platform

For ESSAR, Cisco UCS provides the highest configuration of SAP HANA appliance, such as 4 X Intel Xeon Processor E7-8867L 2.13 GHz, which gives 40 cores of CPU; 512 GB of RAM and internal storage of about 300 GB X 8 (6 GB-10 K), which give usable 2 TB; Disk Flash (Fusion's ioDrive) of about 320 GB, which provides support to the internal RAM of 512 GB.

The implementation of Cisco UCS over SAP HANA has helped ESSAR bring all relevant data to decision makers within seconds, in an understandable and user-friendly format, for real-time decisions. The solution also dramatically improved existing planning, forecasting, pricing optimization processes by combining high-volume transactions, and real-time analytics. This in turn helped accelerate business performance while reducing TCO, because of minimal need of hardware, maintenance and testing.

Lessons learned

- Cisco UCS server platform is designed with the performance and reliability needed to power memory-intensive, mission-critical applications and virtualized workloads.
- Cisco UCS serves as an ideal server platform for SAP HANA as it provides a unique Intel Xeon processor-based industry-standard infrastructure for enterprise critical applications.
- SAP HANA enables customers to get information immediately – without the delay of typical enterprise data warehouses – by building on the benefits of the Cisco UCS platform.

Company Spotlight

Company name:	ESSAR Group
Industry:	Steel, Oil & Gas, Power, Shipping, Manufacturing IT
Location:	Mumbai, India
Number of Employees:	70,000 people across 20 countries

The implementation was also a way forward for ESSAR to strengthen its existing investments in SAP software and gain real-time visibility into businesses across all its verticals. This helped senior executives and employees across the ESSAR group to get a snapshot of the overall business at a group level.

As SAP HANA is highly scalable, ESSAR is planning to make available SAP HANA computation to content management systems such as MOSS DMS. ESSAR has also partnered with Cisco for unique business transformation initiatives like the Ideation room.

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