

Real-Time Analytics for Oil and Gas with Cisco SAP HANA

At-A-Glance



When your company begins exploring a new area for oil and or gas, how do you ensure that you're keeping exploration costs as low as possible? And how about operations costs in the Arctic, desert, or deep sea? You can't afford to drill in the wrong place, and you need a lot of immediate information, essentially Big Data, to monitor operations, streamline processes, lower risks to workers, and prevent disasters.

The Cisco® SAP HANA solution gives you instant access to huge volumes of data from exploration and operations to worker safety and disaster recovery. With access to granular details gathered down to the sensor level, you can integrate and model data from virtually any data source for essentially complete insight into your business. These digital tools also help to assess and manage unexpected market risks and opportunities. Equipped with better data, your executives and workers can make better decisions faster.

Challenges and Trends

The single greatest challenge facing the oil and gas industry is managing the high costs of exploration and operations. To solve this problem, companies are increasingly using analytics to support better business decisions about exploration and drilling, to help to streamline processes, and to lower worker risk. Operators are also starting to take advantage of mobility, cloud computing, and social media to gather and manage data for analysis.

The Cisco SAP HANA Solution

SAP HANA is a hardware and software solution that integrates SAP business applications and analytics into business processes in real time, based on its innovative in-memory computing architecture. This in-memory technology is crucial for the oil and gas industry, as traditional analysis based on disk-based data warehouses may take days or weeks, whereas SAP HANA can deliver the same results in seconds or minutes. The Cisco Unified Computing System™ (UCS) server platform is an SAP-certified platform that supports new information-based strategies. The Cisco UCS® design enables faster deployment of servers and applications for new sites and facilities.

Using this solution, you can reduce downtime, support expansion, ensure high availability, support disaster recovery, and begin to realize the true power of the Internet of Things.

Managing Costs Through Complete Data Visibility

The Cisco SAP HANA solution gives you visibility into data gathered across the company and around the world. Some analytics are routinely used to help manage operating costs: You may access sensor data to determine when to perform a well workover, for example, or to learn whether critical equipment has reached its end of life. More advanced analysis helps you model, confirm, and fine-tune projects and operations, creating new use cases for which data volumes were previously too large. SAP applications running on the Cisco UCS server platform give you a new level of computing power and throughput that analyzes and puts data to use within seconds.



Taking Advantage of Big Data for Oil and Gas

In this era of Big Data, sensor and data inputs are vital to the smooth operation of the oil and gas infrastructure. The Cisco SAP HANA solution helps you manage large volumes and a variety of structured and unstructured data in real time, offering synthesized, ad hoc data analysis from SAP applications, third-party solutions, or custom industry applications. The solution also supports new uses, such as innovative applications to improve planning, forecasting, pricing optimization, or other complex processes.

Benefits

- Real-time business intelligence and predictive analysis
- Flexible, converged infrastructure that enables rapid deployment
- Massive scalability in a simplified structure to contain costs
- Improved safety and better retention of workers
- Lower total cost of ownership with more efficient IT process automation
- Improved disaster tolerance and recovery using redundant blade systems

Case Study

ESSAR Group in India: [Industry Conglomerate Deploys Dynamic Server Platform](#)

Why Cisco and SAP?

Cisco and SAP integrate world-class networking into your data center infrastructure, deployed as an appliance, in the cloud, or through Tailored Data Center Integration (TDI). TDI reduces costs by sharing existing computing, networking, and storage resources; operational processes; and staff knowledge.

To learn more about Cisco UCS and SAP environments, visit <http://www.cisco.com/go/sap>.

