PAKISTAN PETROLEUM LIMITED

A Vertiv Case Study



Pakistan Petroleum Limited



ABOUT THE COMPANY

Over the years, PPL has developed a reliable foundation and infrastructure for providing clean and safe energy through sustainable exploitation of indigenous natural resources while adhering to best practices of corporate governance and employee health and safety and constraining the ecological footprint of its operations. As a result, Sui, Kandhkot, Adhi and Hala, Gambat South, Mazarani assets, Purification Plant, Sui, Sui Field Gas Compressor Station, Sui Production, Sui Field utility, Sui Field Hospital and Quality, Health, Safety and Environment, Drilling & Well Engineering, Construction, Projects, Production Technology and Medical Services departments stand certified for ISO 9001 Quality Management System.

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Company Background

A pioneer in the natural gas industry in the country, Pakistan Petroleum Limited (PPL) has been a frontline player in the energy sector since the mid-1950s. As a major supplier of natural gas, PPL contributes over 20 percent of the country's total natural gas supply besides producing crude, Natural Gas Liquid and Liquefied Petroleum Gas.

At present, PPL operates 10 producing fields across the country. Over the years, PPL has developed a reliable foundation and infrastructure for providing clean and safe energy through sustainable exploitation of indigenous natural resources while adhering to best practices of corporate governance and employee health and safety and constraining the ecological footprint of its operations.

The Situation

The industrial Internet of Things (IIoT) is fuelling transformation within the Oil and Gas sector. With global consumption on the rise, companies need to innovate not only to stay competitive, but also to maintain a high level of standard within the organization, ensuring workplace safety while bridging the gap between supply and demand.

A particular area that needs to be optimized for IIoT is the facility's network of communications. Oil and gas communications help collect critical

Case Summary

Location: Pakistan

Vertiv Solutions:

SmartCabinet[™]



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information across the entire facility,

often supporting multiple applications from 'conventional' networks (ie. VoIP, internet access and basic IT network) to industrial-level communications such as monitoring, drill rig communications and diagnostics, and other industrial equipment.

These communication areas, particularly industrial-grade communications, are exposed to varying weather and environmental conditions, such as extreme heat, snow, or rain, as well as vibrations and shock, electromagnetic interference or ambient conditions. Thus, the infrastructure that is installed in these communication sites need to be resilient, reliable and highly efficient. Any form of downtime is not an option as this area is needed to ensure that operations across the entire facility are unhampered.

It is in this light that Pakistan Petroleum embarked on an upgrade, looking for a smart solution that can be utilized in their facility to support their communication network. Not only does the customer require a robust solution that can withstand harsh conditions, it also needed a flexible infrastructure with a small footprint that is quickly deployable and easy to use.

The Solution

The customer was looking for a solution that has the ability to support conditions typical in an oil and gas facility. For example, it has to be able to support varying temperatures during remote drilling. In this instance, the entire network has to remain live during drilling and no downtime should occur.

In this case, Vertiv's SmartCabinet edge infrastructure solution emerged as the perfect solution to support Pakistan Petroleum's requirements. The SmartCabinet passed rigorous testing parameters such as temperature, remote connectivity and power control features.

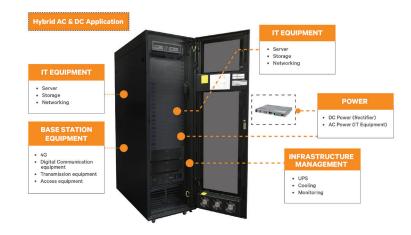
Moreover, the SmartCabinet's innovative design supports various types of deployment, whether for data centers, industrial facilities or telecommunication networks. Integrated with power, thermal management, and infrastructure management and monitoring, as well as racks, the all-in-one solution supports the customer's communications upgrade with provisions to expand as the need arises.

The Results

PPL worked closely with the local Vertiv team in Pakistan to install the SmartCabinet solution in its remote field site.

It took the Vertiv team just one day to have the solution up and running. The SmartCabinet houses high-efficiency power and cooling solutions from Vertiv, plus intelligent monitoring systems that allow PPL to better manage its remote site. With this, the customer is expected to have a robust, agile and highly available communications facility with the support of Vertiv.

"Industrial communication facilities is a key enabler of digitization and modernization in an oil and gas environment," said Etienne Guerou, Vice President of Industrial Market for Vertiv in Asia. "It requires a robust infrastructure that can scale up or down when needed to support varying levels of infrastructure requirements. As more data is expected to be generated with the integration of big data and IoT in the oil and gas sector, having the right IT infrastructure will play a crucial role in the success of any smart technology deployments."



For more information on the SmartCabinet[™] and other infrastructure solutions, please visit **www.VertivCo.com**

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