

Case Study

Location: Saudi Aramco, Saudi Arabia Product: DCS-5020

Saudi Aramco's Emergency System Features DCS-5020

Baud Telecom Installs Integrated System for World's Largest Oil Company

An effective emergency communication system is a critical component of large petroleum-production and refining operations. In such environments, employees dispersed among multiple sites must be able to communicate and coordinate emergency efforts in challenging, sometimes dangerous, conditions. A system that supports and facilitates emergency communications can help save lives and minimise the damage that an accident at such a site can cause.

Saudi Arabia's national oil company, Saudi Aramco, recently decided to improve the emergency communication system they were using in their Riyadh Refinery Emergency Control Room. With the help of Baud Telecom Company, they installed Zetron's DCS-5020 TETRA Digital Console System. The installation consolidates the refinery's 11 hotline telephone lines—one for each of the refinery's 11 sites—into a single console system. This centralisation of their communications has greatly improved the company's ability to respond quickly and effectively to disasters and other critical emergencies.

Saudi Aramco

Saudi Aramco is a fully integrated petroleum company with operations in the exploration, production, refining, and marketing of petroleum, as well as petrochemical manufacturing. Their offices, affiliates, and joint ventures span the globe.



The company is strongly committed to protecting the safety of its workers and the public as well as the quality of the environment. The company's decision to improve the emergency communications system at its Riyadh refinery demonstrates this commitment.

Baud Telecom wins the bid

Through a selective, preferred-vendor bidding process, Baud Telecom Company (BTC) was chosen to help devise and implement a new emergency communication system for Saudi Aramco. Established in 1975, BTC is a leading telecommunications company with offices in Jeddah, Riyadh, Khobar, and Madinah, and numerous branches outside the Kingdom.

BTC's extensive customer list includes a diverse range of public and private agencies, organisations, and companies, including the Royal Diwan (the primary executive office of the king) and Royal Palaces; numerous ministries; the military; public utilities; and companies in the educational, industrial, commercial, and health-services sectors.

Saving space, centralising communications

When asked what Saudi Aramco needed from this project, Eric Lozada of BTC's Radio Transmission Networks Division, says that Saudi Aramco's request called for "...a console system that would integrate the Riyadh refinery's 11 hot-line telephone sets into a single dispatching console." The intention was to save space in the Riyadh refinery's Emergency Control Room and centralise the operation and management of its emergency communications.

Zetron's DCS-5020 Digital Console System was chosen as the centerpiece of the project because it met these requirements.

The implementation

BTC worked closely with the customer to define the project's scope and design, and to ensure that its final implementation would meet the customer's needs.

"As part of the RFP," says Lozada, "BTC presented Saudi Aramco with an item-by-item compliance statement to ensure that the customer understood the scope of the installation and the equipment it would require. We also conducted a site survey to identify the needs of the operators who would actually be using the system."

"A representative from Saudi Aramco was assigned to the BTC Installation and Commissioning Team," Lozada continues. "This was beneficial to the customer because it meant that one of their engineers would be involved in the process. This would give him experience with the new system throughout its implementation, assembly, setup, configuration, interconnection, and operation."

According to Lozada, the implementation went exactly as planned. "There were no challenges during the implementation," he says. "During the system commissioning, Aramco's engineer tested the features of the DCS- 5020 extensively. He was very satisfied with the results."

Earning the customer's approval

The new system is performing well for Saudi Aramco.

"Now, during an incident," says Lozada, "members of the Disaster Team can all attend to the emergency together. They listen through the DCS-5020 Console system speakers in the Emergency Control Room to conversations about an incident from its beginning to its resolution. If they must conduct a multiple-site disaster operation, it is now possible for the ECR Manager to talk to all 11 Aramco sites simultaneously through a single, intelligent, digital dispatch console position."

The system also includes Zetron's Model 390 TETRA Remote, which may be interfaced to a Motorola TETRA Trunked Radio at some point in the future.

According to Lozada, both BTC and Saudi Aramco are very happy with the results of the project. "For the BTC implementation team," he says "it's a pleasure when a dispatch console system they've installed earns a smile and the approval of the attending commissioning engineer the day the project is turned over. We are very glad to have such a satisfied customer." ■



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