Sahara Petrochemicals was founded in 2004 to drive the development of the petrochemical and chemical industries in the Kingdom of Saudi Arabia, by setting up companies in Jubail Industrial City to produce and market a range of products. One of those companies is Al Waha, a downstream facility for the production of polypropylene, which is a lightweight plastic used in textile fibers, household goods, automotive parts, and other products.

Building the Al Waha complex on a greenfield site gave Sahara Petrochemicals an opportunity to create a showcase for how best to use IT in the industry. The company had a broad vision of what it wanted to achieve. “Our goal was to use the latest and best technologies in the most effective ways,” says Mr. Sulaiman A. Al-Manai, Sahara’s IT Manager. “We wanted to create a secure, state-of-the-art environment in which productivity can flourish.”

One important objective was to combine all technologies and services on a single infrastructure, avoiding any isolated areas that would prevent users from having a single view of all information throughout the company. Because Sahara Petrochemicals planned to incorporate data, voice, and video on the same infrastructure, support for 10 Gigabit Ethernet in the backbone was essential to deliver the necessary high-speed performance across the campus. Further driving the need for fast throughput were plans to introduce IP video surveillance, IPTV, and collaboration solutions such as video conferencing, in addition to an ongoing requirement to receive and process high-definition image files from the company’s upstream operations, and other areas as required.

Sahara Petrochemicals intended to adopt several rich media collaboration solutions as a way of enhancing employee productivity through improved interactions. The new infrastructure, therefore, needed to support a high level of integration between data, voice, and video. Such integration was also essential for safety on the campus, with plans to implement digital signage and to use the IP network for public announcements, so that information was always made available in a timely manner and could easily be updated to reflect changing circumstances.

The company was committed to helping ensure that the experience of using the communications infrastructure was positive for employees, contractors, and visitors alike. Mobility was thus a critical focus area: Sahara Petrochemicals wanted to offer cohesive connectivity from a variety of devices over wired and wireless links, all over the campus.

Sahara Petrochemicals chose an infrastructure based on the Cisco® Borderless Networks architecture, which is designed to create a platform for communicating securely and effectively with anyone, anywhere, on any device, at any time. Cisco routing and switching solutions provided a fast and reliable network foundation with end-to-end security, including management and monitoring. The company selected the Cisco IronPort® Email Security Appliances to provide protection against threats such as spam and malware, while still receiving and delivering communications securely.

“Using integrated media, particularly IP-based video, has made a real difference to how we showcase our achievements, boosting the way we work, collaborate, share knowledge, manage time and improve productivity.”

Sulaiman A. Al-Manai
IT Manager, Sahara Petrochemicals and its affiliates
Borderless Network and Video Boost
Productivity in Petrochemicals Company
Continued

sending emails without compromising on the performance of email delivery. Several solutions combine to give employees secure connectivity from a range of mobile devices: the firewall in the Cisco ASA 5500 Adaptive Security Appliance and its integrated WebVPN gateway, together with the Cisco AnyConnect Secure Mobility Client and the IPsec Cisco VPN Client.

The secure, high-performance infrastructure incorporates wired connectivity together with indoor and outdoor wireless, giving network users flexible options for accessing services on a wide range of devices, with a consistent experience each time. This capability makes communications simpler and functionally richer for employees and contractors, helping them work more efficiently.

Sahara Petrochemicals was one of the first companies in Saudi Arabia to consider business video as an important driver of productivity, using the Cisco Collaboration architecture as a template for creating compelling experiences throughout the organization and beyond. Video conferencing and video telephony are as important, and as easy to use, as phones, which results in better meetings and business outcomes. Cisco Video Surveillance Manager and IP Cameras were deployed to monitor the company’s data center, avoiding the additional cost of a separate video surveillance network.

Managers in Sahara and its affiliates use business IPTV to keep up to date with the latest worldwide business information, and digital signage products from the Cisco Digital Media Suite for applications such as corporate communications, safety messages, security awareness, and showcasing many public and community events sponsored by the organization.

To further enhance efficiency, the company is using several solutions from the Cisco Collaboration portfolio, including Cisco Unified Communications Manager for IP telephony, Cisco TelePresence® for video conferencing, Cisco Unity®, for unified messaging, and Cisco Unified Personal Communicator (CUPC). Unified messaging saves employees’ time by managing all voicemail, emails, and faxes in their Microsoft Exchange inbox, while CUPC enriches their work experience through presence, and by streamlining all communications, including voice, video, data, and mobile applications, and allowing calls to be placed from a PC using Click to Call software.

As Sahara Petrochemicals expands into new plants, it plans to continue extending its communications capabilities in innovative ways. The company is interested in further developing the integration between voice and video, as part of the drive towards enhanced productivity, and is considering tracking assets over the IP infrastructure using radio-frequency identification. There is also the potential to migrate to Cisco Borderless Network services such as MediaNet and TrustSec® to further improve video and security management, and the company plans to implement the Cisco Unified Computing System in its data center to generate additional efficiencies.

“We anticipate significant productivity gains, together with the additional benefits of cost savings, improved public safety, and higher employee satisfaction.”

H.E. Engr. Saleh M. Bahamdan
Executive President, Sahara, Sahara Petrochemicals and its affiliates

For More Information
To find out more about Cisco Borderless Network architecture, please go here.
Further details of the Cisco Collaboration portfolio are available here.