SK Energy in South Korea has selected Motorola’s Scalable Dimetra™ IP TETRA (Terrestrial Trunked Radio) network system, along with the MTP850Ex ATEX TETRA terminal, to enhance operational efficiency and user safety in hazardous environments.

SK Energy is the first customer in Asia to use Motorola’s ATEX terminal. With the deployment, SK Energy employees now have access to the latest digital TRS (Trunked Radio System), which is more spectrum-efficient compared to the existing analog communications. SK Energy has been using an analog TRS since the oil refinery giant was first set up in 1962.

SK Energy will now be able to design and optimize the radio communications network to improve operational efficiency and productivity using cutting-edge digital functions.

SK Energy’s Ulsan complex has a processing capacity of 840,000 barrels per day, the largest in Korea. The radio network handles more than 10,000 calls per day at the main office and five manufacturing sites. About 2,000 staff, comprising SK Telecom and partner employees, are using the network.

The MTP850Ex is certified under the ATEX and IECEx international certification schemes for protection against the most explosive gas and dust clouds.

The safety features, smart ergonomics and fail-safe robust operation of the terminal allows SK Energy employees to benefit from a wide range of communications features that are built to withstand tough and hazardous environments. For example, if the connection to the Main Switch Office (MSO) is broken, users will still be able to communicate with the base station without any interruption.

In addition, when there is a request for help or an emergency call, the location of users can be tracked immediately with the help of the terminal’s integrated GPS receiver. The MTP850Ex also has a built-in “Man Down” alert feature that triggers an emergency procedure when the carrier of the radio remains motionless for a set period or suffers a fall.
Meeting the Challenges

With one watt audio output power, the terminal delivers best-in-class audio performance in the typically noisy environments where specialist users operate.

In addition to voice communications, the MTP850Ex features an integrated WAP browser and supports simultaneous Short Data Service (SDS) and Multi-Slot Packet Data (MSPD) services that enable rapid access to critical information in the field.

Equipped with a simplified keypad with a large button surface, the terminal is easy to use with gloves. Combined with the large screen display fonts and icons, the MTP850Ex facilitates operation in difficult environments with limited visibility.

With a full range of supporting ATEX certified accessories, the MTP850Ex can be customized to meet requirements of different operating environments.

Motorola Solution

On the Scalable Dimetra IP solution, the MTP850Ex can be housed in a single rack and is scalable to meet the size of the project.

Compact, highly portable and easily deployable, it is an ideal solution to meet the growing demand for flexible and robust communications in small to medium-sized enterprises or in emergency deployment.

“Our decision to adopt IP-based scalable TETRA system was motivated by an increasing need for data communications to improve voice communications quality and operational efficiency,” said Jin-Young Park, Senior Manager, IT Planning Division, SK Energy.

“We chose Motorola’s TETRA system for their security, safety and reliability. These are critical factors when you consider the potentially explosive environments when operating oil and petrochemical plants.” Kun-Sang Choi, director of Enterprise Mobility Solution, Motorola Korea said the contract win from SK Energy demonstrates the effectiveness of Motorola’s two-way radio products in the enterprise market.

“Motorola aims to deliver intuitive technology that is second nature to users, so they have the peace of mind to focus on their mission, and not on the technology,” said Choi.