STRÄNGNÄS MUNICIPALITY:
PIONEERING TWO-WAY RADIO WITH MOTOROLA TETRA COMMUNICATIONS

SERVING USERS ACROSS EMERGENCY SERVICES, EDUCATION, HEALTH AND UTILITIES

A MULTIFACETED AND DYNAMIC ECONOMY

Strängnäs municipality is in the heart of the expansive Mälardalen region in the County of Södermanland. It is a midsized municipality with a population of 32,000, and includes other important cities such as Mariefred and Åkers Styckebruk. It also has a history going back to the Viking era as an important trading centre and meeting place.

Today, Strängnäs municipality is one of Sweden's most dynamic and fastest growing regions, with a multifaceted and dynamic economy being home to businesses of many different sizes and sectors operating in industries such as biotech, pharmaceuticals, logistics, education, engineering, and tourism. Described as a 'future oriented region', the municipality prides itself on offering the fastest and most efficient communications, and has a well-developed infrastructure enabling people to travel quickly from A to B by motorway, main road and railway. It is also now served by fast, efficient and secure two-way radio communications.

CUSTOMER PROFILE
Customer Name
Arne Rutgersson, Head of Security

Company
Strängnäs municipality

Technology Partner
Celab Communications

Service Provider
RAKEL (Radio communication for Effective Management)

Industry Name
Local government/Municipal services

Product Name
- MPT 850 S Handportable Terminal
- MTM800 enhanced self-contained radio transceiver unit
- MTP850Ex TETRA portable terminal rated to ATEX & IECEx specifications
- Motorola Service from the Start and Motorola Advanced Services

"**As end users become more adjusted to the terminals and learn their features, they begin to see possibilities and solutions for both organisational and communicational problems. You need to be responsive and keep track of this kind of feedback for future updates and improvements. The users are therefore already contributing to the development of the process.**"

Arne Rutgersson, Head of Security
Strängnäs municipality

THE CHALLENGE

Deliver a mission-critical network supporting a crisis management strategy, and improved collaboration, safety and services delivery

The aftermath of the tsunami in the Indian Ocean in 2004 sparked a national debate in Sweden regarding its crisis management strategy. Several thousand Swedish citizens had been caught up in the tragedy, but the response of the authorities was recognised as being inadequate and led to a wholesale review resulting in the establishment of a new authority, the Myndigheten för samhällsskydd och beredskap (MSB) – or Swedish Civil Contingencies Agency. Created in 2009, the MSB was established to strengthen the country's civil protection and emergency preparedness, and today also manages RAKEL – a common digital radio communications system based on TETRA and designed for Sweden's civil protection and rescue services.

A raft of new legislation was also introduced concerning the crisis management capabilities of all public agencies. Ulf Tengbrand, the former chief of the regiment in Strängnäs, was asked to assess the municipalities in the county of Södermanland. Having found major deficiencies, especially in the event that cellphones and/or landlines fail, Tengbrand drew-up an action plan in four key areas: the assembly of a crisis management staff, the establishment of an officer on call, the creation of a public inquiry point, and the procurement of a reliable communications system.

CUSTOMER PROFILE
Solution Features
- Fully-integrated voice and data
- Push to Talk functionality allowing instant communication among multiple users
- GPS ensures user location can be determined and plotted
- Dedicated emergency button

Benefits
- Immediate access to co-workers and up-to-date intelligence
- Intuitive operation for timely and dependable communication
- Enhanced collaboration and crisis management capability
- Improved security of communications and safety of staff

THE SOLUTION

Motorola's field-proven and robust two-way TETRA terminals meet multi-faceted user needs and come with first-class support and services

At the same time as Strängnäs municipality was looking to implement its crisis management strategy, Sweden's Government announced that RAKEL (Radio communication for Effective Management) was to be opened up to other users – including public order, security and health organisations, and commercial parties such as utility companies. Currently serving about 31,000 users, RAKEL is Sweden's national TETRA (TErrestrial Trunked Radio) network, and was completed at the end of 2010.

Primary users are the police, coastguard, customs, rescue services, ambulance services and defence forces. Other important organisations, such as the Civil Aviation Administration and the Swedish Maritime Administration, have access in the event of exceptional incidents. Each service operates its own virtual network , but TETRA technology means that all users are able to communicate on a single shared system nationwide in the event of a major incident. This ensures users can cooperate more easily and effectively with one another, even if outside of their normal area of operation.

Offering resilience and security, as well as inter-agency and dedicated talk groups, TETRA proved the ideal solution for not only Strängnäs municipality's crisis management plan, but also in meeting its daily operational needs. It has about 2,000 staff working across numerous areas – from social services, schools and rescue services, to utilities, real estate and road maintenance – and was looking to improve operational efficiency by enabling faster and more efficient communications between staff.

Since most of its users were unfamiliar with push-to-talk two-way radio terminals, the municipality's main requirement was ease of use, although the level of support and services that the suppliers under consideration could deliver was also a crucial factor. As a result, it opted for Motorola Solutions and its partner Celab Communications, who were a clear winner on both counts, offering a range of terminals incorporating a familiar and intuitive cellular-style interface, and backed by comprehensive implementation and ongoing support.

Strängnäs municipality specified Motorola MPT 850 S Handportable Terminals, MTM800 enhanced self-contained radio transceiver units, and the MTP850Ex TETRA portable rated to ATEX & IECEx specifications. The latter allows use in environments containing potentially explosive gas and dust. Implementation commenced in early 2010 and completes by the summer of 2011. The first 'super users' within each department have already been trained fully, and are now responsible for coaching their colleagues and acting as a support for their respective departments.

FIRE

HOME CARE

ROAD MAINTENANCE

SCHOOLS

ROAD MAINTENANCE

FIRE

HOME CARE

SCHOOLS

THE BENEFITS

Instant voice and data communications ensure faster, more efficient services and response, and promise innovative applications

Motorola Solutions and Caleb Communications have delivered a TETRA platform that allows Strängnäs municipality to coordinate all operations via talk groups within each department, although a small dispatch console was provided to the central fire station to aid command and control. Within just a few months, Strängnäs municipality's staff report major advantages to the more direct communications TETRA delivers, and are feeding back with ideas on how to benefit from some of the more advanced features of the terminals, such as packet data and GPS (global positioning system).

"As end users become more adjusted to the terminals and learn their features, they begin to see possibilities and solutions for both organisational and communicational problems," says Arne Rutgersson, Head of Security in Strängnäs. "You need to be responsive and keep track of this kind of feedback for future updates and improvements. The users are therefore already contributing to the development of the process."

For example, social services are now able to dispatch the right person much faster than before, meaning patients get help quicker and operations run more smoothly. Similarly, the highways maintenance department is able to coordinate resources more easily, and its team members feel more secure because the TETRA radios include an emergency button and man-down functionality. Meanwhile, the municipality's emergency services have been impressed by the coverage and audio quality of TETRA compared with their previous analogue systems.

With local utilities now being migrated to the system, Strängnäs municipality is better prepared for floods, outages, accidents or fires than ever before, and knows that its TETRA platform will continue to perform in the event of a crisis.

SUMMARY

Looking to the future

As a 'future oriented region', Strängnäs municipality prides itself on offering the fastest and most efficient communications, and this is reflected in its pioneering use of Motorola's TETRA terminals to meet a diverse set of user needs ranging from day-to-day operations across departments, to emergency response and crisis management.

A clear advantage in using Motorola'sTETRA radios is the ability to interact with other organisations in the event of an emergency or at the scene of an accident, whilst the municipality's users are also exploring new applications that could realise significant efficiencies, such as AVL (automatic vehicle location) and GIS (geographical information system).

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