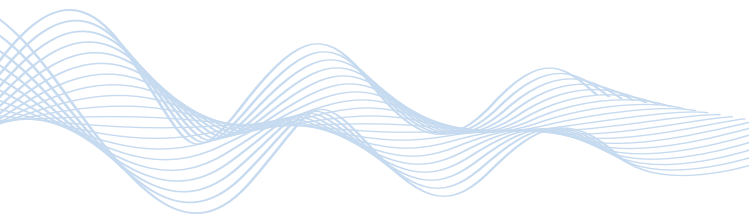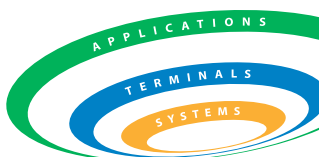# Applications**Insight**

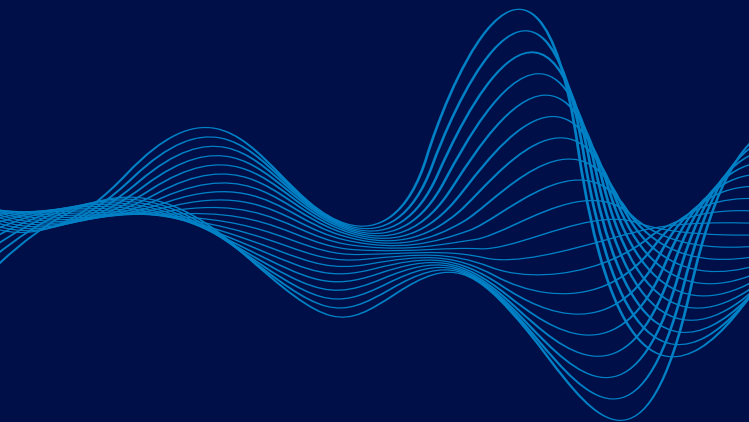## QUICK REFERENCE GUIDE

sepura

Going further in critical communications

Sepura is a global leader in the design, manufacture and supply of TETRA and DMR digital radios, systems and applications.
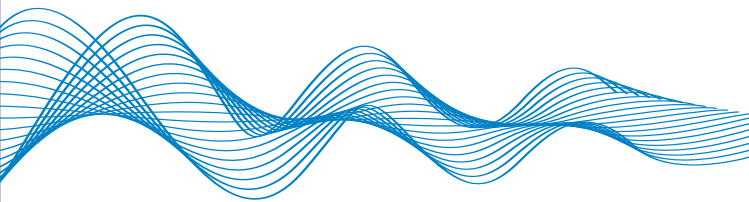
Our range of fully scalable apps has been specially designed to boost operational efficiency, streamlining essential processes to save you time, money and effort while significantly enhancing staff safety.

For more information on our applications please visit **www.sepura.com**

CONTENTS

LOCATE-**SERVER**

Locate-Server is a multi-user, multi-network, location solution that provides real-time information, accurate to the nearest second. It combines location data from multiple networks and devices via a single integrated interface, and provides intelligent data handling for narrowband networks, making it available to all applications, regardless of the network technology used.

IN ACTION: LOCATE-**SERVER**

ASTRID operates Belgium's radio, paging and despatching network for the emergency and safety services. Using Locate Server, in combination with Query (see page 10), Image Messaging (see page 11) and Emergency 112 (see page 9), the organisation has been able to enhance decision-making and improve emergency response management, offering greater protection for Belgium's 11m population.

LOCATE

Based upon the Locate-Server application, Locate adds web-based location visualisation clients to give you a flexible multi-user solution. Accessed via a PC in the control room, or out in the field with a mobile device such as a notebook or tablet, it allows you to track resources, regardless of the technology used.

IN ACTION: **LOCATE**

A highway maintenance team is allocated a number of small repair jobs. Using Locate on a tablet, the supervisor can quickly and easily track his team's progress, without the need to interrupt operations with a voice call.

ST**PROTECT**

STProtect is the only dedicated, TETRA-based, integrated lone worker protection indoor tracking system. Enabled radios automatically report their location both in and outdoors, allowing you to locate employees quickly and easily with no need for extra hardware or user input.

STProtect also allows you to create checkpoints, set routes and control site access for each user group, establish alarm scenarios and set management reports.

IN ACTION: ST**PROTECT**

Lyon-Saint Exupéry Airport covers an area of 2,000 hectares and handles around 8 million passengers a year. Used to monitor and define the movement of all personnel, STProtect has become a vital element of their resource management and onsite safety strategies.

SICS**eXpress**
DMR DISPATCHER

SICS eXpress is a lightweight, easy-to-use voice and data dispatcher for use with Sepura's DMR family of products. In addition to status updates, it offers a customisable logo display, optional resource location and mapping, and integrated emergency procedure look-ups.

IN ACTION: SICS**eXpress**

The control room of a processing plant uses SICS-eXpress to track personnel and allocate tasks. When emergency situations occur, emergency procedures are instantly shown to the dispatch operator, allowing them to follow company protocol quickly and accurately.

SICS-**NET**
TETRA DISPATCHER

This multi-user/multi-agency dispatch system, compatible with Sepura TETRA networks, allows dispatcher operators to track vehicles and personnel, visualise location via building and street maps, and communicate using a combination of voice and data.

Extremely user-friendly, it offers multi-group patch and select capabilities, Dynamic Group Number Assignment (DGNA) – allowing you to dynamically create temporary or permanent talk groups – as well as emergency notifications and safety features such as Man-Down and lone worker.

IN ACTION: SICS-**NET**

SICS-NET plays a vital role in the administration of CERN's TETRA network. The organization uses Sepura terminals, systems and applications to create a reliable communication network for its users both over- and underground, including emergency services and operational engineers.

EMERGENCY **112**

Deployed by public safety networks throughout Europe, Emergency 112 provides a next generation 112 service, enabling citizens to contact emergency services by SMS from any landline or mobile phone.

The app offers instant real-time messaging, providing a lifeline in areas where cell phone signal strength is low, for people with communication disabilities or in silent emergency situations.

IN ACTION: EMERGENCY **112**

Whilst waiting for the night bus, a woman sees a youth being attacked by three men. Without drawing attention to herself, she texts 112. The details are passed to the police, who quickly arrive to deal with the situation.

QUERY

Query provides mobile workers with quick and easy access to information held on multiple intranets and databases. Results from concurrent queries can be combined and instantly delivered in a single, concise response, bringing enquiries to a swift and accurate conclusion without the need for lengthy voice calls.

Query can be used to build custom business logic or combined with Sepura Short Data Applications to provide a one-stop turnkey solution.

IN ACTION: **QUERY**

To improve security in the wake of the 2008 Mumbai terrorist attacks, the Parliament of India installed a high-capacity digital TETRA network for voice and data communications. They use Query as part of their public safety and security operations to gain fast, straightforward access to critical information.

IMAGE **MESSAGING**

Allowing you to dispatch critical image message information – across both narrowband and broadband networks – to staff working in the field, this app can be integrated into existing command and control systems, and is able to deliver images taken from CCTV, video recorders or cameras to TETRA radios and Java-enabled devices.

IN ACTION: IMAGE **MESSAGING**

During a family day at the beach, a child is reported missing by her frantic parents. Using image messaging, a photo of the little girl is instantly circulated to all police in the area, who quickly spot the child wandering unaccompanied. After a short but tense time, the child is reunited with her parents.

MESSAGE

This flexible system allows customised routing of messages between email, SMS (GSM/3G/LTE) and SDS (TETRA), permitting seamless communication among the various technologies. The app can also perform a store and forward service, holding messages until they can be delivered.

Used with a Sepura short data application (SDA), messages from email clients can also be presented and responded to in standard email format from your TETRA radio.

IN ACTION: **MESSAGE**

During Finland's EU presidency, a significant element of police duties centred on monitoring convoys. Instant messaging was used on both TETRA and GSM networks; with support, agents were able to message between the two technologies, allowing real time status updates and freeing voice channels for emergency calls.

RADIO MANAGER **2**

A comprehensive fleet management tool, Radio Manager 2 allows you to simultaneously program up to 32 radios per programming client application, enabling rapid updates across your fleet.

With automatic terminal detection and programming based on radio identity, radios can be programmed at remote locations, reducing operational costs.

A simplified programming mechanism helps to reduce errors, whilst comprehensive reporting and asset management capabilities ensure that all data is available and auditable.

IN ACTION: IMAGE **MESSAGING**

Devon and Cornwall Constabulary covers the largest geographical police area in England. Radio Manager 2, in conjunction with remote programming pods, allows officers to receive radio updates and upgrades at their nearest location.

"In the past, a force-wide update would have taken months to implement, but now there's potential for an update of this magnitude to be carried out within a single cycle of duty shifts".

- Tim Bishop, Airwave Development Manager, Devon and Cornwall Constabulary

REMOTE DIAGNOSTICS

Maximising resources by giving access to radios in the field from a secure, central location, Remote Diagnostics allows you to resolve issues with minimum downtime of equipment or personnel.

All functions available on the radio can be accessed remotely; via a server PC, an engineer can view technical data, perform tests, reset covert mode, reset TXI, change talk groups and folders, and view battery signal and strength.

IN ACTION: **REMOTE DIAGNOSTICS**

A worker at a remote location is unable to call his colleagues and requests assistance. He plugs the handset in to a diagnostics pod. The engineer can see that 'transmit inhibit' had been accidentally enabled; disabling the function quickly resolves the problem. The worker is back at his post within minutes.

CRYPTO MANAGEMENT CENTRE & CRYPTO DELIVERY TOOL

The **Crypto Management Centre** (CMC) enables you to centrally manage your end-to-end encryption keys. Fully compliant with the TETRA MoU Security and Fraud Prevention Group recommendations, it offers manual or automatic key update cycles and deletion of keys from lost or stolen radios.

Held within a custom USB device, the **Crypto Delivery Tool** (CDT) allows the secure transfer of crypto keys over a direct wire connection to Sepura radios. Fully autonomous, it leaves no trace on the host PC.

IN ACTION: **CMC & CDT**

A casino requires its encryption keys to be updated on a shift-by-shift basis. The CMC can automate the procedure, updating the keys according to a schedule, or on an ad hoc basis.

STANDALONE KEY MANAGEMENT SYSTEM

Designed to enable you to manage your own TETRA air interface security keys, the Standalone Key Management System (SKMS) takes static cipher keys and seals them with the authentication key for later programming of each radio.

Whether you provide the Authentication key values in the SFPG Recommendation 01 format, or they are generated by the SKMS, using a secure random number generator, the SKMS then stores the key value and the TEI of the radio in the required SFPG format, ready for secure transfer.

SHORT DATA APPLICATIONS

Short Data Applications (SDAs) enable the automation of work flows, job allocation and remote control capabilities; provide intuitive display of information received on a radio; and allow rapid access to remote databases or other sources of information – with no need for a firmware update.

Each Sepura SDA is tailor-made to your operational requirements, streamlining key procedures to save you both time and money.

IN ACTION: **SDAs**

BHP Billiton Iron Ore, based in Western Australia, uses a geofencing SDA* to warn operators if they are approaching a blast area; the reporting rate of the GPS is automatically increased for more accurate positioning and decreased when the operator retreats, conserving system resources.

* Geofencing implemented in partnership with Radlink Communications, radlink.com.au

VIRTUAL CONSOLE

This software package has been designed to allow complete control of a Sepura TETRA mobile or gateway from a Windows-based mobile data terminal, saving valuable dashboard space in today's congested vehicles.

The virtual console can be customised and integrated into other applications as an active X control. It can also be connected remotely via an IP connection providing access to remote radios or radio access in an office environment.

IN ACTION: **VIRTUAL CONSOLE**

The Swedish Police use the Virtual Console as part of the POLMAN® Police Maneuvre System* – a robust, touch-screen computer that centralises control of their warning systems as well as providing automatic number plate recognition and navigation.

* POLMAN is a STANDY® product. Image courtesy of Standby AB, www.standby.eu

For a full list of worldwide distributors, visit **sepura.com**

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