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Seamless Communication for Crisis Management - update

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BAPCO has been working closely within the EU-funded project SECRICOM to establish user requirements, including a recent exercise in London. In this exclusive article we provide an update on an ambitious project that aims to address seamless interoperability between multiple agencies and nations, amongst other things.

Today's emergency services require a range of information and data to carry out their responsibilities effectively; there is an increasing need for the core responders (i.e. category 1) to inter-communicate seamlessly in order to achieve the necessary network-enabled capability across the emergency services as well as inter-communicate with co-operating responders (i.e. category 2).

Seamless Communications for Crisis Management (SECRICOM) is an EU-funded research project within the Seventh Framework Programme (FP7). SECRICOM is addressing secure inter-communications amongst all agencies that are involved in the management of large-scale, multi national, crisis (e.g. flood, earthquakes, large scale fires, etc). This is being achieved through the integration of a number of communications technology solutions driven by a comprehensive set of user requirements.The SECRICOM consortium consists of 13 partners drawn from eight countries with representatives from industry, universities, small and medium sized enterprises and non-government organisations.

The project started in September 2008 and is being co-coordinated by QinetiQ. BAPCO are very active members of the consortium with responsibilities that include establishing the user requirements and making sure the end user is considered during each aspect of the project – which is a significant challenge! From project initiation BAPCO, through Shaun O'Neill, have been working closely with QinetiQ to identify and capture a comprehensive and traceable set of user requirements through the use of a project scenario. Shaun quickly established a user team and has called upon members of the team during this last year to collect, validate and expand the user requirements and flood scenario (see BAPCO Journal Volume 15 Issue No 2).

Most recently an exercise was carried out in London to begin to identify the specific information exchange requirements (IERs) associated with the high level requirements. Recognising the user team have limited availability, the approach taken was a cut down version of a process used by QinetiQ to establish the IERs of military communication networks. The purpose of the exercise was to begin to identify the capability gaps that will become apparent by modelling the IERs against current communication architectures. Knowing where the capability gaps are will help to better scope the project and identify priorities for the final demonstration. This should ensure that the project will not only address the technology solutions for seamless

interoperability across multiple agencies and nations, but also address the key problems being presently faced by emergency responders during a large scales crisis.

Within SECRICOM, interoperability is being addressed by QinetiQ in conjunction with BAPCO and other collaboration partners with focus being made at the technical aspects. The Internet Protocol (IP), as a future-proof open standard for networking, is being used to provide the solid foundation to efficiently achieve technical interoperability through the facilitation of the flow of business information over legacy and future communications; business information includes command and control, geographical information, computer aided dispatch, mobile data, push-to-talk voice, video, conferencing, telephony, messaging, email, web, etc as appropriate to each responder.
Support for emergency services business continuity is also being addressed by the SECRICOM consortium through the facilitation of consistent and continuous communications in support of ongoing operations.

In particular, QinetiQ's proven multi-bearer approach is being used as the basis for a secure, managed and seamless mobile networking solution for connecting the various tiers of the chain of command across different core and co-operating agencies.

The adopted multi-bearer approach enables a self-forming self-healing diverse IP network to be managed with low skill levels whilst being fully compliant with open standards. SECRICOM is aiming at integrating and managing the dynamically available bearers as a single network by drawing on the unique dynamic policy-based re-configurability which is inherent in the multi-bearer approach. Other aspects being considered include end-to-end security and secure multi-agent system for high integrity information retrieval.

SECRICOM concludes in April 2012 with a demonstration of sufficiently de-risked technology solutions which may act as a frame of reference for future National or EU-funded procurements.

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