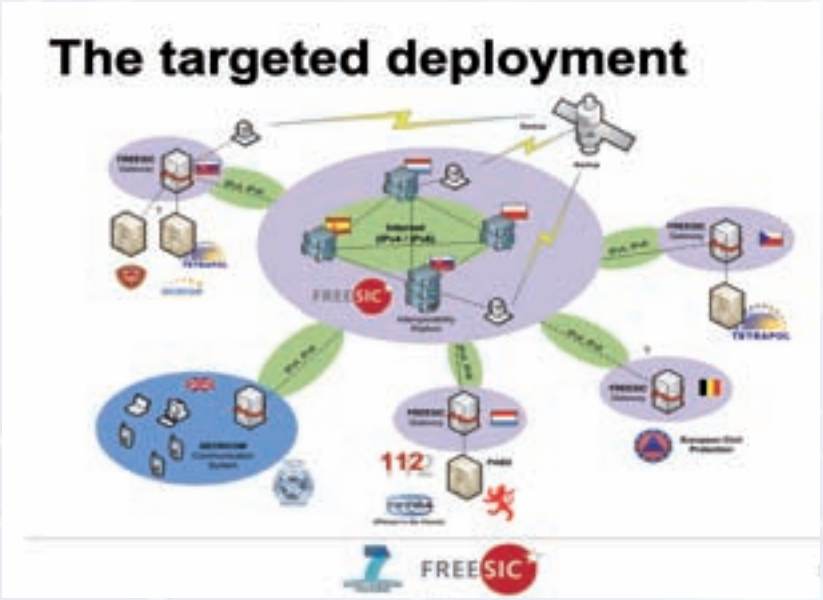
An open gateway with social media attributes



During the B-APCO Autumn 2014 event attendees were treated to a demonstration of new technology that enables responders to communicate with each other using whatever technology they have to hand – be it smartphones, satellite phones or TETRA radios.

Project background

The new technology has been developed under an EU FP7 financed program which goes under the strange-sounding name FREESIC (FREE Secure Interoperable Communications). It seeks to answer the central challenge that different responder organisations face whenever they use different technologies to communicate with each other – the difficulties in intra and inter agency interoperability, especially during cross-border major incidents. For example how would a flood rescue specialist from France communicate with a firefighter in Germany during a mutual-aid operation without having to exchange communications equipment?

The answer comes in the form of a universal gateway operated from a web front-end – a little similar to Facebook or LinkedIn – which enables participants to easily create common talk groups for the duration of incidents. Unlike social media gateways, however, these groups enable participants to talk with each other using their iPhones, Android phones, or TETRA radios, as well as send messages.

Stefan Vanya, research director at Ardaco, and overall Project Coordinator of FREESIC, explained the thinking behind the project: 'We are providing an open gateway with open specification sample codes to create a network with all the attributes of a social network. This will enable partners that want to set up interoperability between their agencies to develop gateways from their systems to FREESIC. Once the gateways have been set up, they can then use the web interface – just like Facebook – to set up interoperability features such as common talk groups, and they can also specify who can talk to whom, for example.'

Central to the FREESIC ethos is the capability of using mobile phones and mass market devices for access to the gateway, explains Vanya, so as to include as many responders as necessary: 'They can use their personal phones as we've developed a push-to-talk app for mobile phones that can be easily installed via Apple Store or Google Play. All you need is the user name and password to quickly get onto a talk group.'

This technology opens up a number of possibilities, adds Vanya, not least of which is the ability to draw in expertise from people wherever they may be. 'You could be on holiday for example but as long as you have your mobile phone with you, you could be contacted and brought into a common talk group in order for responders on the ground to tap into your specialist advice.' Furthermore, during a wide-area flooding incident, crews on the ground would be able to communicate with helicopters overhead.

Shaun O'Neill, British APCO European Projects Manager (and business and user lead for FREESIC), explained that although talk groups could be set up 'ad hoc' as an event escalated, in practice it is probable that they would be arranged in advance through multi-agency contingency planning exercising and event de-briefs . 'What often happens at the moment is that when agencies exercise their contingency plans they can realise for example that agency A needs to communicate with agency B and C – say – at Silver level, but because they have different communications systems establishing the required link-ups becomes a problem. What FREESIC offers is the protocol to set up the links in advance, so when an incident does occur everything has already been agreed in terms of business and technical aspects. The talk group management side is easy to set up, and yes you can do it in "fast time" but clearly it is better to do it beforehand.'

FREESIC as a project is now moving towards a final proof of concept demonstration that will take place 5th June in Luxembourg. Three demonstration tests have already taken place in Nitra (Slovakia, May 2013); Windsor and Paris (during Milipol), the latter two in November 2013. A guidance and user manual is being drafted to define a set of operational procedures, ready for the final demonstration in Luxembourg.

Looking further to the future, it is envisaged FREESIC technology could also find interest in the commercial non-emergency services market too, points out Vanya, particularly within organisations that need to communicate with the emergency services – think power stations, utilities, and refineries, for example. 'At the moment we are concentrating on voice capabilities, but we'd be looking at adding extensions such as database access, sensor networks, and video streaming, in a follow-on project planned to start in 2014.'

For more information visit www.freesic.eu