

Using GIS to support collaboration between emergency services

Collaboration between emergency services has progressed substantially over recent years. Community stations are being built throughout the UK to provide shared premises for police, fire and ambulance organisations. Emergency services are increasingly sharing back office systems, including command and control, and fire and rescue services are co-responding to provide emergency medical cover.



Cadcorp's UK Sales Manager Gary Randle set the scene on the prevailing challenges for emergency services and the role GIS could play

This was the main point of discussion at the annual Emergency Services Conference held by British Geographic Information Systems (GIS) and web mapping software developer Cadcorp. Representatives from fire, police and ambulance services attended from around the UK. All sharing a common interest in the use of GIS and web mapping in improving their service. Attendees took the opportunity to learn from other emergency services about their innovative use of GIS technology and recent Cadcorp product developments.

Cadcorp's UK Sales Manager, Gary Randle, set the scene on the prevailing challenges for emergency services and the role GIS could play. His introduction was followed by a presentation from Clare Nolan, Strategic Risk Analyst of Greater Manchester Fire and Rescue Service (GMFRS). In 2016, GMFRS responded to over 35,000 incidents and equipment was mobilised on 65,000 occasions. Clare's talk centered on the modelling of future resource, in particular focusing on the effect of station relocation and standby moves on response. Clare explained that a standby move is movement of a resource to ensure cover is provided across an operational area. She said the work carried out using Cadcorp's desktop software Map Modeller and Workload Modeller, resulted in a more efficient management of standby moves.

Web Map Layers

Ben O'Hara, Information Specialist at West Yorkshire Police, found GIS could be

successfully used to reduce burglaries in Leeds. In his presentation 'Predicting crime', Ben drew from previous research at Greater Manchester Police where it was demonstrated that a burglar would repeatedly return to a 'successful' area. That is, until something occurs to disrupt their feeling of 'comfort' about an area. The project used algorithms developed by University College London (UCL) to create a patrol plan that identified and covered those streets at highest risk of crime. The patrol plans were distributed to officers in the field using Cadcorp Web Map Layers on mobile devices. The activity resulted in a disruption to the crime pattern, and the number of burglaries was reduced in the city.

John Phillips of Shropshire Fire and Rescue gave a user perspective on upgrading to the latest version of Cadcorp's web application, Web Map Layers. Their application, called GIRAFFE (Geographical Information Readily Available For Fire Employees) went live on the corporate intranet in September 2016. John recounted how Local Knowledge™, a web service set up by Cadcorp to display distance to the nearest hydrant, area commander contact and flood zone location, was becoming indispensable to users.

GIS Manager Ray Hooper gave his insight to the use of web mapping at London Fire Brigade (LFB). Ray showed how the operational use of the system allows LFB staff to self-serve mapping. LFB's use of Cadcorp Local Knowledge™ within Web Map Layers again proved to be of particular interest. In

the LFB scenario, it provides a one-stop shop for corporate information about a location. Ray explained that LFB was now exploring the use of the application on mobile devices and its integration into other applications.

Hiren Patel, an analyst at Leicestershire Fire and Rescue Service, gave the final user presentation. He gave a frank view on whether risk was dependent on distance from a fire station. Somewhat surprisingly to the audience, the conclusion of his analysis was that it was not.

SmartSTORM

Cadcorp opened the conference to its partners from the emergency services community. Richard Lancaster of Sopra Steria gave an overview of the integration of mapping functionality in the SmartSTORM control room mapping application. The STORM application is deployed at 30 emergency services organisations in the UK and at a number of organisations overseas, and SmartSTORM provides a smooth upgrade to take full advantage of the latest technology. SmartSTORM provides numerous command and control functions including incident and resource handling, alarm monitoring, major incident management and a gazetteer including GIS integration. Richard explained how Cadcorp's desktop software Map Modeller and server software GeognoSIS can be deployed as part of SmartSTORM. Map Modeller allows the administrator to easily set up a stack of Ordnance Survey map data and GeognoSIS serves the map data using a variety of Open Geospatial Consortium (OGC®) web mapping services. This enables high quality rendered mapping and the ability to easily incorporate third party mapping overlays such as Environment Agency Flood zones.

Andrew Cooling of Ordnance Survey updated conference delegates with the latest technical and commercial developments at the UK's mapping agency, briefing delegates on the new OS MasterMap® Highways Network product which is supported by Cadcorp software.

Cadcorp runs its Emergency Services Conference annually and GIS workshop events for emergency services throughout the year. These events provide a mix of user presentations, networking opportunities, product and industry updates and software tutorials.

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