



Helping with enquiries

Neil McLeod relates how improved data access and sharing via a web-based GIS is helping Bedfordshire tackle crime, disorder and anti-social behaviour

Reducing crime - particularly low-level crime and anti-social behaviour in local communities - and the fear of crime (which is typically greater than actual crime) has been high on the government's list of national priorities since 1997.

Coupled with this, the application of information technology was recognised by government as fundamental to the delivery of higher levels of service that can help improve community life in general. In fact, a November 2002 document from the, then, Office of the Deputy Prime Minister (now the Department for Communities and Local Government), entitled *The National Strategy for Local e-Government*, stated that a key objective of the government's Public Service Agreement with local authorities was "assisting local government to achieve 100% capability in electronic delivery of priority services by 2005, in ways that customers will use".

Among the priority services identified were seven for which the responsibility for their electronic delivery was to be shared between central and local government and other local public service agencies. One of the seven fell under the heading of *Creating Safer and Stronger Communities*. And one of the two 'required e-government outcomes' of this were that on-line facilities would be available to "allow local authority and youth justice agencies to coordinate the secure sending, sharing of and access to information in support of crime reduction initiatives in partnership with the local community".

In Bedfordshire, the response to this aspect of electronic local government service delivery, or e-government, has been the setting up of the Bedfordshire Crime and Disorder Reduction Partnerships (CDRPs). The CDRPs are cooperatives of statutory bodies, agencies and organisations that develop strategies to help reduce crime and anti-social behaviour. These strategies include enabling map-based information sharing and

analysis as part of a major initiative known as *Sharing Community Related Information in Bedfordshire Electronically (SCRIBE)*.

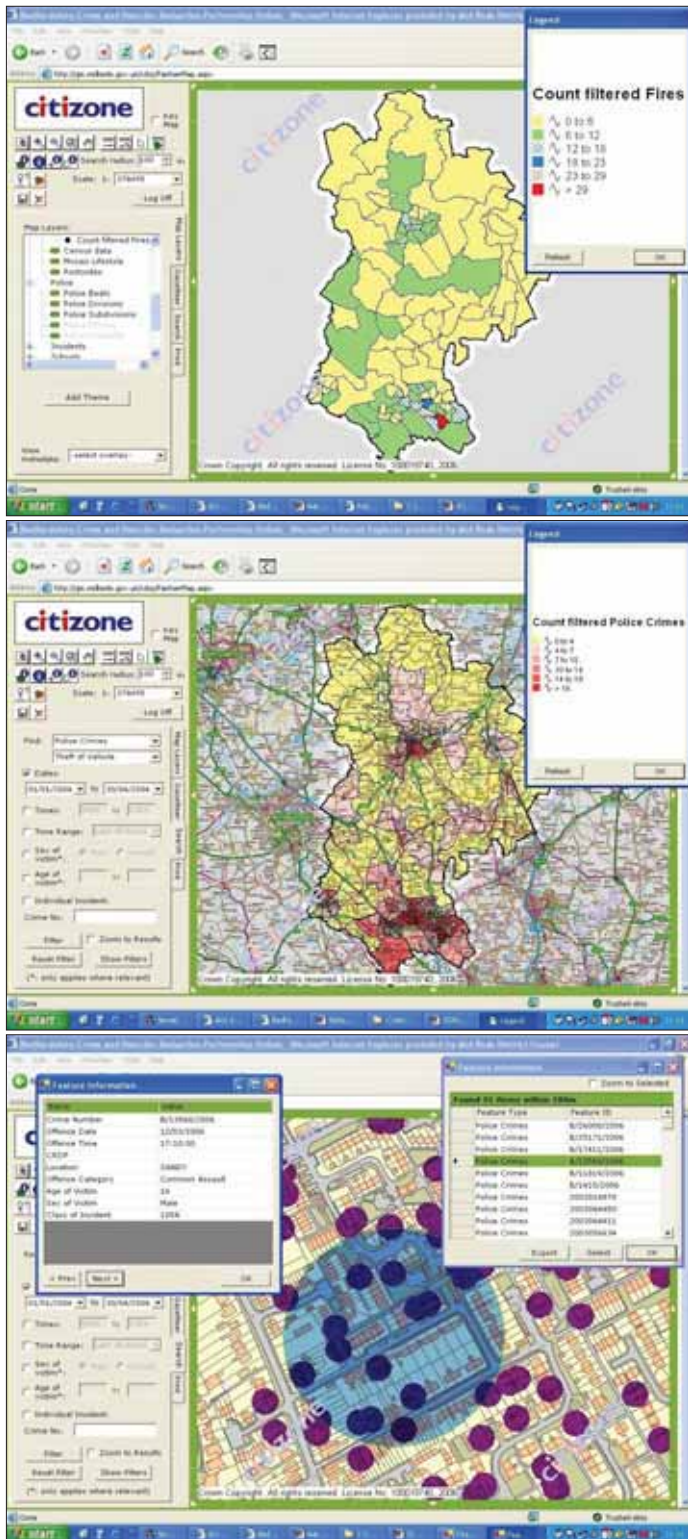
In the words of Julia Beckett, deputy chief executive of CDRPs member Mid-Bedfordshire District Council and also the Local Authorities Association block leader on *Safer and Stronger Communities*; "The primary purpose of the Bedfordshire CDRPs is to reduce crime and the fear of crime in the area served by the consortium members. "But", she adds, "we can only succeed in this aim through full cooperation between all of those agencies and organisations responsible for delivering services that support the various aspects of community life and community safety."

This is where GIS technology from Cadcorp is helping the CDRPs achieve their aim.

Data sharing

The individual organisations that comprise the Bedfordshire CDRPs are currently Bedfordshire County Council, Mid-Bedfordshire District Council, South Bedfordshire District Council, Bedfordshire Community Safety Partnership, Bedfordshire Drug and Alcohol Action Team (B:DAT), Bedfordshire Police, Bedfordshire & Luton Fire and Rescue Service, Bedfordshire & Hertfordshire Ambulance and Paramedic NHS Trust and Aragon Housing Association.

Among other things, the SCRIBE initiative provides the CDRPs with a central, map-based GIS to acquire and maintain information from the wide range of existing IT systems used within this diverse group of organisations. Through a web browser, the GIS enables disparate datasets to be viewed, combined and analysed to deliver business and operational benefits to each organisation that are greater than the sum of the individual parts.



Pictured above (from top): interrogating the SCRIBE database to map fire incidents; crimes reported to police, and criminal incidents within a user-defined boundary

This web-based GIS has been developed on Cadcorp's GeognoSIS.NET and uses the existing IT infrastructures of the CDRPs' member organisations to provide each with local access to central server-hosted data and applications. Client-side map-based data viewing and analysis facilities are available to data users according to their needs, meaning there is no need for them to carry the overhead or inconvenience of facilities that they don't need.

"We selected GeognoSIS.NET for this project for a number of reasons," says Nick Adnitt, SCRIBE project manager. "First was the software's clear lead from a technical standpoint, especially its interoperable support for a wide range of data formats, as standard. Second was Cadcorp's commitment to forming a strong business and professional relationship and their

dedication to working with us towards a common objective. And third was the company's ability to quickly understand and then to transform our requirements into a working solution."

The system has been designed to contain all data necessary to enable statistical crime audit reporting by ward and sub-ward, for internal use as well as for central government returns. It also makes a filtered, anonymous version of the data available to the public via the Bedfordshire Citizone portal ... a measure that helps citizens better understand the real level of crime within various localities in Bedfordshire.

The system also encourages citizens to directly report incidents of anti-social behaviour in real-time, using an interactive map interface. However, the CDRPs stress that this is not a substitute for the existing emergency services reporting channels and which remain in place.

Joined-up information

With the basic system design agreed between all project partners, Phase 1 involved Admitt's development team spending much time acquiring existing data from each of the CDRPs' member organisations and elsewhere in order to build the Oracle gi-based central database of the GIS.

This database, which is constantly updated through jointly-agreed business processes, comprises both mapping and associated alphanumeric data. Mapping data includes Ordnance Survey 1:10,000 and 1:50,000 digital maps of the area covered by the CDRPs, together with aerial photography and boundary data such as local authority, ward, parish, police division, police beat and post codes, as well as partner-specific spatial data. The associated data sets include reported and recorded crime, anti-social behaviour incidents, ambulance call-outs involving the police, fire incidents, street lights, CCTV, housing stock, schools, census and social services data, as well as other, commercial data.

Using appropriate privileges, data can be accessed, viewed, aggregated and analysed by each of the CDRPs member organisations using the ability of GeognoSIS.NET to directly read and/or write to over 150 native GIS, CAD, graphic and database formats on-the-fly ... a facility common to other Cadcorp products.

At the end of the first phase of the project, in May this year, a purpose-built data analysis work bench was rolled out across the partnerships. Users are now able to easily access, view, query and analyse a single source of map-based crime, fire, ambulance and anti-social behaviour incident data and identify hot-spots, patterns and trends.

Analysis and viewing facilities provided by the system include recorded crime and/or incident data by police beat, statistics by school catchment area and/or date and time, by postal code, and by type of crime in specific areas. It also performs crime pattern analysis and the tracking/visualisation of trends over time.

During Phase 2 of the project, which is now live, partner feedback and requests for enhancements are spurring the development of more advanced reporting and analysis tools. In addition, the public interface is undergoing trials, with workflows and business processes being refined to improve response to the web-based anti-social behaviour incident feed. This will culminate in the full-scale public launch of the system towards the end of this year.

The bottom line

By sharing information and facilitating joined-up working, the Bedfordshire CDRPs' new GIS will help target finite resources to best effect. Its demographic analysis facilities will also yield information that will be extremely useful in designing public spaces, improving street lighting and planning housing schemes that reduce opportunities for crime and anti-social behaviour.

Finally, on-demand analysis and the ability to generate a variety of reports that measure value and performance will be invaluable, not only in day-to-day operations but also in future plans for building safer, stronger communities.

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