

# Charnwood Borough Council



## CHALLENGE

- geographic information not being used to its full potential
- no sharing of maps with the public
- a bespoke intranet application in need of renewal
- limited human resources

## SOLUTION

- replace a bespoke application with an off-the-shelf web GIS
- give all employees access to simple editing functionality
- deploy a view and query solution for the general public

## BENEFITS

- all staff have unrestricted access to geographic information
- service to the public has been improved
- cost savings through increased customer self-service and channel shift
- more effective and efficient use of IT resources

The Planning Department had long been a user of GIS in Charnwood Borough Council. However, outside of planning, few people could access geographic information. The GIS team was given the task of extending the range and reach of the underused resource. The question was how best to do this. They opted to deploy off-the-shelf web GIS applications from Cadcorp both for internal and public use.

## Customer

With a population of over 171,000 Charnwood is one of the largest district councils in the country in terms of number of residents. The Borough sits centrally between the three cities of Nottingham, Derby and Leicester, extending from the town of Loughborough in the north to the edge of Leicester to the south.

## Challenge

Charnwood Borough Council has been using Cadcorp GIS technology for 14 years. The planning department was the pioneer, purchasing a number of desktop licences of Cadcorp SIS in 2000. In addition the authority had access to an in-house developed intranet GIS system based on Cadcorp technology. In 2012 a review of GIS provision in the Borough Council revealed that while the Planning Department was well-served with geographic information, other departments of this very large district council were failing to share in the benefits of on-line access to this resource.

Wayne Brown (Senior GIS Analyst) recalls: "Planners were very much our power users. They had access to an extensive range of GIS capabilities including access to Cadcorp desktop licenses and the custom built intranet GIS together with functionality in their Northgate M3 system. Planning staff were capable of undertaking sophisticated spatial analyses using desktop GIS. However, we judged that outside of planning, an 80:20 rule could be applied: 80% of potential users in Charnwood Borough Council could

get by with 20% of the functionality of desktop GIS. Web GIS seemed the obvious way forward."

The open question was whether to continue to invest in enhancing and extending the reach of a bespoke intranet GIS which had been in service for a decade, or to invest in a new product. Key to the decision-making process was the fact that the GIS department had seen its personnel reduce from five to two people. One of these as Authority Address Custodian was also responsible for keeping up to date details on the 91,000 addressable objects in this large authority.

## Solution

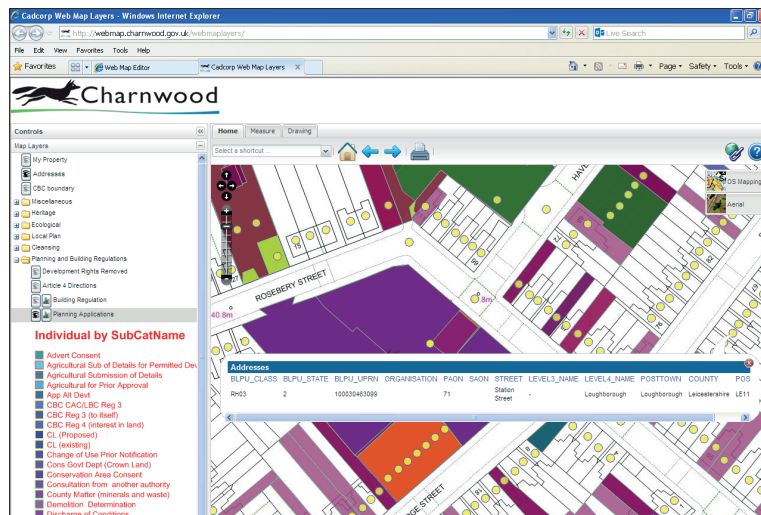
Kevin Davies, the Authority Address Custodian describes the Borough Council's decision as follows: "We not only decided in favour of a web model, we also decided that our web GIS applications would be off-the-shelf. Though we have the ability, we don't have the bandwidth to maintain bespoke applications."

The Borough Council selected two off-the-shelf web applications from Cadcorp. The first, Web Map Editor, is a web-based GIS which the Council has made available to all 450 council employees over the intranet. The second is Web Map Layers, which is Charnwood's external viewing platform for use over the internet by the general public. Both products are supplied and maintained are maintained by Cadcorp



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Web Map Layers showing planning applications with BS7666 gazetteer information

as generic web applications, with the Charnwood GIS team being responsible for customising them as required.

### Back-office

This switch to deploying off-the-shelf products has seen a change in the job responsibilities of the GIS team as IT Manager Aymen Khan relates: "Since deploying web GIS applications from Cadcorp, the GIS team now has more time to devote to business analysis and consulting. Their remit is to reach out to the different departments in the Borough Council, listen to their varied requirements, and then tailor the web GIS to meet different departmental needs."

An example of their success in promoting GIS, is to be found in the Housing Department, where a team of 20 staff is responsible for managing 6,000 properties. Prior to the introduction of Web Map Editor, the staff were locating properties, estates, and tenants using spreadsheets, based on data extracted from a SQL Server database. It is now a simple matter for Housing staff to carry out valuable tasks such identifying the location and extent of void and under-occupied properties.

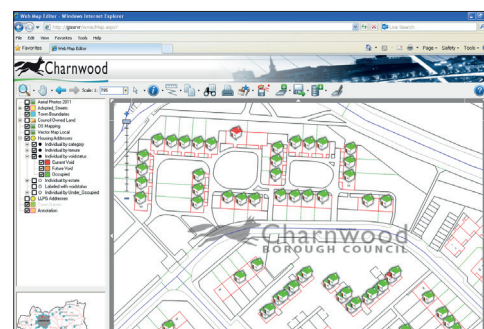
Other departments which have followed or are about to follow Housing's example in using Web Map Editor, include Planning, Legal and Environmental Services.

Like many local authorities, Charnwood Borough Council works with external contractors. The GIS Team is currently exploring ways to provide them with secure and confidential access to limited spatial data sets served through Web Map Editor accessed over an extranet. "Most contractors have an interest in viewing our map data", noted Wayne. "However, there are also contractors who have an interest using web GIS to communicate their work to us. We are looking at ways to give them write as well as read access to our spatial records".

### Front-office

The use of geographic information is by no means restricted to back office staff and systems in Charnwood. The Borough Council's call centre is also a recent convert to web GIS. Its 50 operators have found that having access to Web Map Editor connected to Lagan CRM software, greatly improves their dialogue with the caller as Wayne explains: "When a member of the public reports a problem – such as fly-tipping for example – it is very easy for the operator to bring up a map of an area and use this to agree the precise location of the incident with caller."

The GIS is also now used in a wide range of projects including one-off instances such as planning the Olympic Torch Relay in 2012, local events such



**Web Map Editor (WME) showing council housing void status. Green indicates occupied, and red indicates void.**

as "The Party in the Park", the annual running of the Loughborough half marathon, the annual Loughborough Fair and weekly local markets. Other uses include emergency planning in the event of a flood or other such disaster, and the legal determination of land owned by the authority.

### On-line

GIS is also playing a role in allowing the public to serve themselves. This has been one of the primary reasons for the Borough Council deploying a second web application – Web Map Layers. This public-facing mapping application can be accessed from the Borough Council home page by anyone with an internet connection. It provides on-line access to some twenty layers of map-based information ranging from planning applications through to ecological sites, and the location of refuse recycling centres. It is also the basis of 'My Charnwood' – a one-step property search facility for discovering what is happening in the locality of a particular property or address – (see <http://my.charnwood.gov.uk/>).

The On-line GIS – Web Map Layers (<http://webmap.charnwood.gov.uk/webmaplayers>) will also play a central role in allowing the authority to publish various datasets in order to comply with obligations laid down by either central Government or European Parliament such as the INSPIRE directive.

### Benefits

- The organisation has a consistent, spatially enabled, front-end to a number of business systems, making it easier for users to interrogate and collate information from them
- Queries concerning land and property issues can be answered almost instantaneously and more cost effectively, improving customer response
- The Housing Department's reliance on an internal GIS service bureau has been reduced, saving costs
- Researchers have been freed up to concentrate on strategic and analytical tasks
- Cost savings have been achieved through a reduction in the number of expensive field visits



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