

Medway Council



CHALLENGE

- individual departments sharing spatial information by exchanging files
- a web mapping application which was ten years old
- a need to decide whether to enhance or replace GI technology

SOLUTION

- migrate to Cadcorp Web Map Layers
- install a centralised Spatial Data Warehouse based on Oracle technology
- deploy web mapping for both public and corporate users

BENEFITS

- geographic information is now a corporate resource
- more users have access to location intelligence
- data silos have been removed
- business systems have been spatially-enabled
- self-service has resulted in savings of time and money



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The Council was faced with the decision whether to enhance an ageing and bespoke web mapping application or to switch to a new product. They judged that they needed to change the way they worked, and they opted to migrate to a new architecture.

Customer

Medway is a conurbation and unitary authority in Southeast England. It is a vibrant area undergoing redevelopment as part of the Thames Gateway. It is also home to the Universities at Medway and its historical connections bring millions of visits to the area every year.

Challenge

In 2011 Medway Council faced a number of challenges: a reducing budget, a growing population and increased demands for services. To meet these challenges the Council identified that it must change the way it worked, and initiated a 'Better for Less' programme. The Council set out a number of design principles to help to shape the future organisation and GIS was key to a number of these principles. It was to provide value for money by helping simplify and standardise business processes. It would also help build an intelligence-led organisation by facilitating greater information sharing. The challenge was that the GIS infrastructure in Medway was in need of modernisation, as the Council's GIS Coordinator recalls:

"We recognised that we needed to change the way we were managing geographic information. Individual departments in Medway were used to sharing spatial data by exchanging files with each other. The problem with this approach is that you can quickly have multiple versions of the truth. You never really know if a particular data set is the most current version.

"In addition, we were reliant on a web mapping application which had been in service for over ten years. Web technology had moved on in that time and the application needed upgrading. We had to make a decision whether to invest in enhancing an existing bespoke product, or switch to an off-the-shelf alternative."

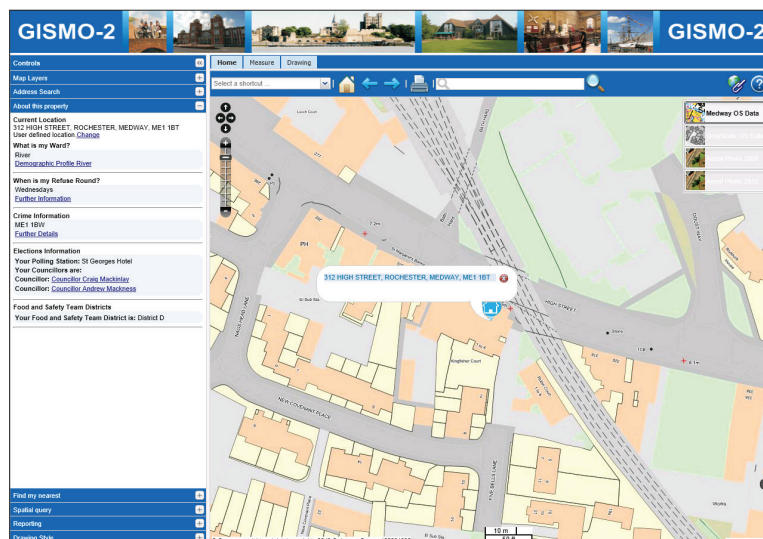
Solution

The solution adopted by Medway was to migrate to an off-the-shelf product - Cadcorp Web Map Layers - as the web mapping application for both public and corporate users, and have this underpinned by a Spatial Data Warehouse based on Oracle technology.

GISMO-2

GISMO-2 is the name of Medway's new corporate web mapping application. It is designed to manage spatial data more effectively than its predecessor, and to enable more users and more systems to share in the geographic information it manages.

Individual departments in the Council are responsible for maintaining the data which is served through GISMO-2, and this responsibility is managed through a data security model implemented in an Oracle Spatial Data Warehouse. When users make a change to their data in the warehouse, these changes are propagated dynamically to GISMO-2, and any other systems and users of that data immediately see the changes. For example, the Children and Adults Directorate has responsibility for maintaining information about all schools within



'About My Property', automatically returns a list of information about an address

the Medway area. There have recently been changes to both school names and school types which have been updated within the master file. This change is instantly replicated in GISMO-2.

Intelligence

It was important to the Council that GISMO-2 shouldn't be just about sharing maps. Medway now has a central resource - not of maps - but of location intelligence. The geographic items it manages in GISMO-2 – land parcels, buildings, roads and so on – have attribute data associated with them. Consequently GISMO-2 is capable of performing sophisticated spatial queries on geographic data which are beyond the scope of graphic-oriented web publishing solutions. It has meant for example, that employees who would previously have used desktop GIS in their work, can now achieve the same results but with less expensive tools. The web based tool provides some basic desktop GIS functionality, allowing users throughout the Council to perform some spatial queries, address searches and print outs without having to access a license of desktop software, therefore reducing the overall number of software licenses within the authority.

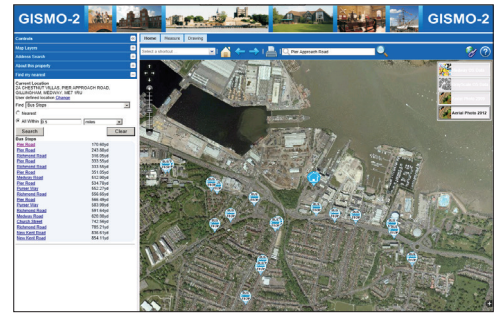
Simplicity

Serving spatial data to a web mapping application from a central repository has made GISMO-2 both more reliable and more informative. Queries such as 'About My Property', automatically return a list of information about an address without a user or administrator having to specify the datasets to switch off and on. Similarly the query 'Find My Nearest' returns more accurate results by drawing upon a single live database rather than having to query multiple disparate data sources.

Where location intelligence information is already being provided effectively by 3rd party data providers, such as the Police and NHS, the authority simply directs users via hyperlinks which GISMO-2 supports. Members of the public now have greater opportunity to self serve using GISMO-2. When users are viewing mapping layers they can now access more information by querying the database behind the map data. By pressing one button they can also find information about their property such as recycling and refuse round information, or about their ward councillors.

Integration

Medway has plans to link GISMO-2 with existing business data in system such as Northgate M3 for Environmental Health, Confirm for Asset Management and Lagan for Customer Care. This will make business intelligence visible to end users and members of the public. "Links of this kind are valuable for two reasons", says the GIS Coordinator. "Firstly they allow us to spatially-enable key business



'Find My Nearest' returns more accurate results by drawing upon a single live database

systems and processes where geography wasn't previously being exploited. Secondly, they allow GISMO-2 to provide anyone in the authority with a geographic window into data which might otherwise have been accessible only through specialist business applications. Linking to datasets held in other business systems means users have the ability to view and conduct basic spatial queries without the need for specialist application software. This gives users and members of the public access to information that they may not have had before'.

Benefits

Moving to the Web Map Layers off-the-shelf web mapping application supported by a centralised spatial data warehouse has brought Medway a number of benefits:

- geographic information is now a corporate resource
- more users have access to location intelligence helping to break down 'data silos' and speeding up access to information
- back-office and front-office systems have been spatially-enabled
- the authority has made cost savings by retiring desktop software
- members of the public have greater ability to self-serve through accessible datasets, allowing them ready access to information while at the same time saving the council time and money



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GIS Coordinator, Medway Council