

CASE STUDY

CUSTOMER:
Hull City Council, UK

MARKET:
Local Government

“The flexibility of eSpatial’s iSMART enabled us to quickly extend the application to upload and share critical location information during the flooding crisis. This greatly eased pressures in the incident room as there was a continuous live feed of information, shared over the intranet, which geographically displayed incidents. Using the NLPG, we shared critical geographic information such as flooded or blocked streets with the public instantly over our website.”

Richard Liversedge,
Head of ICT & e - Government,
Hull City Council

Hull City Council Improve Internal Efficiencies and Customer Services with Web Applications based on eSpatial’s iSMART™

Including Award Winning Flood Emergency Management System Winner - 2007 NLPG (National Land & Property Gazetteer) Exemplar Award

Introduction:

eSpatial and Hull City Council (HCC) implemented a web solution enabling the delivery of Geographic Information (GI) internally throughout HCC as well as to the general public. The solution is based on a corporate spatial database providing internal departments with shared access for viewing and analyzing spatial data to support the council’s location dependant decision making. The solution delivers on the vision of online spatial services in line with the core theme of UK’s Transformational Government - the initiative to use interactive capabilities to deliver services to citizens and businesses that make a real difference to peoples’ lives.

The challenge:

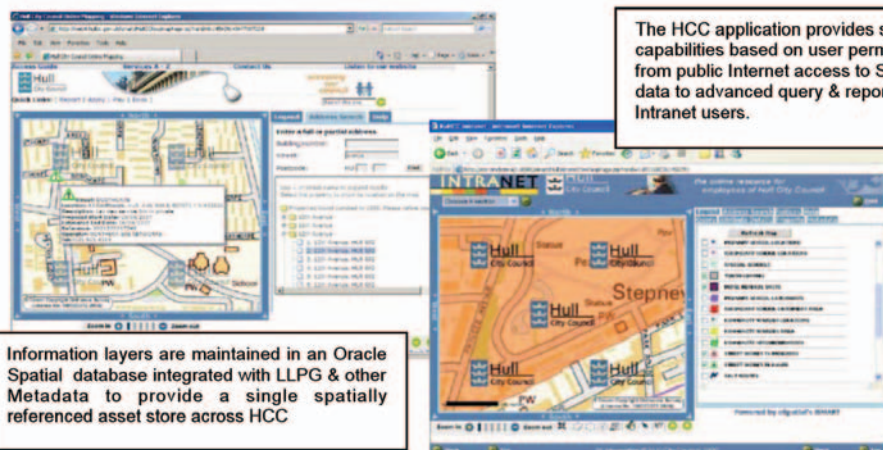
HCC required an intranet solution to provide internal departments with online access to a shared environment detailing all location based assets throughout the city council and to support the ability to query and analyze information. HCC also required integration with its public website to provide valuable information to the general public in compliance with G5 - corporate public display of GIS based information. An immediate requirement was priority outcome G14, to map and publish Streetworks information, in line with an approaching deadline (4 weeks). There was also a requirement for a framework to extend these online services to include the public reporting of incidents such as abandoned vehicles, a solution for viewing and analyzing information such as property details and the flexibility to integrate with business systems such as a CRM.

eSpatial’s Solution:

iSMART is eSpatial’s off-the-shelf software suite enabling Local Government to incorporate online (Internet or intranet) solutions with which are easy to deploy, easy to use and support integrated planning, increased internal efficiencies and enhanced online services to the public. eSpatial implemented a customised online interactive mapping solution to enable HCC to publish, share and manage Streetworks information in compliance with Priority Outcome G14. **This solution was up and running within four weeks.** The key feature of the solution is Flexibility: flexibility to deliver tailored solutions based on specific needs of both internal and external users.

Award Winning Technology:

As a timely demonstration of the value provided by the system, the application was extended (at under 48 hours notice) to include additional information to support Emergency Management activities during heavy flooding in late 2007. Information on ongoing flood management activities (e.g. flooded streets and flood barriers) was made immediately available across HCC. HCC won the prestigious **Exemplar Award for “NLPG – Most Creative Use”** based on this system as the NLPG (National Land & Property Gazetteer) data was uploaded into the existing system. HCC could therefore plot blocked roads, stranded citizens, and at-risk areas with the automatically updated information every 15 minutes. This would have been impossible without the single view of near real-time data which enabled the incident room team to prioritize rescue and flood defense activities.



The HCC application provides separate capabilities based on user permissions ranging from public Internet access to Street Works data to advanced query & reporting for internal Intranet users.

Information layers are maintained in an Oracle Spatial database integrated with LLPG & other Metadata to provide a single spatially referenced asset store across HCC



The iSMART based application was developed with Hull City Council. eSpatial also provided Consultancy, Development, Data Services, Training and Project Management.

Core components:

Public Street Works Reporting:

GIS-based real time presentation of information on current & planned road works, including contact details. Street works information is provided using a web services interface to a separate system based on technology from EXOR Corporation.

Spatial Asset Database:

Public reporting and tracking of a variety of spatial data sources including electoral districts, primary and secondary educational institutions, video surveillance cameras and other information. Over 30 layers of information are maintained, all of which can be accessed using the query builder.

Property Gazetteer:

Public access map-based data presentation of property-related information based on Hull's Local Land and Property Gazetteer (LLPG).

Query Builder:

Online interactive query builder that enables users to construct ad-hoc database queries on the contents core spatial database and generate associated reports PDF and Excel reports (e.g. show all primary schools within a particular electoral district).

Metadata Manager:

The application provides the means to store metadata which is compliant with a number of standard metadata formats including the UK GEMINI and ISO 19115 and Dublin Core (ISO 19836) ISO standards.

Roles Based, Web delivered User Interface:

Web based application interface providing access to core features from any web browser without the need for separate plug-in or ActiveX components - including web based data capture and editing integrated into the Query builder. Four separate access modes are provided ranging including public user, view only internal user, view & edit internal user & administrator.

Key Features

- *Web based delivery over Public Internet and Secure Intranet from a single system*
- *Compliant with eGovernment Standards (including core accessibility guidelines such as EGif)*
- *Pure Web Viewing, Standard Map Viewing capability (Pan, Zoom, Drag etc)*
- *Reuses existing data including Local Land & Property/Street Gazetteers, Street Works data & OS MasterMap™*
- *OGC compliant Spatial Data Store - enabling delivery of core spatial data using OGC WMS and WFS standards*
- *Data consolidation and data warehouse management tools*
- *Supports eGovernment Metadata Standard (eGMS) supporting rapid data discovery & management*
- *Shrink Wrapped Administrative tools (including online help function/ roll-over functionality)*
- *G14 compliance in line with directives issued by the Department for Communities and Local Government (DCLG) to publish and share Streetworks information.*
- *Integration with other key systems including LLPG and the LSG (Local Streets Gazetteer)*
- *Compatibility (interoperability with ESRI, EXOR, CAPS Solutions, CadCorp)*

Key Benefits

- *Increased Internal Efficiencies and Increased customer service through Online Services*
- *Shared online access to centrally managed asset information supporting better decision making*
- *Off-the-shelf functionality for rapid delivery yet Flexible to allow for ongoing extension, such as the Emergency Management System*
- *Customised to Corporate Look & Feel*
- *Adds real value to Oracle Spatial environment as leverages foundation of trusted data residing in Oracle Spatial*
- *Reduces Costs, reduces budget spent on legacy GIS tools, specialist database skills as well as licensing*
- *Compatible with government policy as outlined in the Gershon Review (2004) and Transformational Government Strategy*
- *Is in line with SOCITM (Society of Information Technology Management) Insight Publication "Better Connected 2007" as it promotes the effective and efficient use of Information Technology in the Public Sector*

For Further Information contact:

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