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How local government's information age agenda will benefit the GI industry

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Introduction

Central Government has set the challenge that all public services should be accessible electronically by 2005. This is a major undertaking and can only be delivered if both the public and private sectors work together. This paper is intended to explain Local Government's Information Age (or E-Government) Agenda and how the Geographic Information Industry can play a part in this modernisation process.

Delivering what, to whom and how?

It is clear that not everything can be made electronic and simply making electronic what exists currently will replace paper silos with digital ones. Yet it is clear what the public wants:

- Services tailored to their circumstances
- One-stop services that appear seamless irrespective of who provides them
- Choice in time, place and medium used to access services
- Not to have repeat themselves.

Electronic service delivery is not an end in itself; it is only a sensible goal if it delivers better value for the citizen. The aim should therefore be to use technology to make significant improvements to the quality, accessibility, convenience and cost of local government services.

The Improvement and Development Agency for Local Government (IDeA) suggests that in order for Local Government to meet the challenge of the 2005 target, agreed local/central government goals are required to provide a clear motivation to Local Authorities. It is unclear at present whether current funding opportunities will be adequate to provide a framework in which the Voluntary and Private sectors can see a role in the provision of services. The IDeA suggests three priority goals:

- Transform access
- E-enable consultation and communication
- Re-engineer selected process and support functions

Re-engineering and infrastructure development.

The Geographic Information Industry has a role to play in each of these priority goals. However to understand how, it is first important to discuss the re-engineering aspect of local government's e-agenda.

Re-engineering is about changing the internal processes of a local authority to:

- Deliver information and services that the public (and business) need from a single contact
- Allow services to be joined up
- Reduce costs through re-designed processes, and more first time problem solving
- Collect information once and use it many times.

All these processes are performed already, but generally involve too many individual systems, too much paper, and the data cannot be accessed easily for sharing or managing information.

The use of technology allows for greater system integration, less paper, and more information sharing, both within councils and between councils and other organisations.

As mentioned previously, the public expect 'one stop fulfilment' from contact with councils – they expect to be able to deal with one person to receive needed information, get a housing repair done, resolve a benefit claim or arrange help for an elderly relative. Call centre and one stop shop staff will require knowledge and procedural support which guide them through areas where they may not have professional knowledge. The systems that support the 'front office' staff need ways of identifying, retrieving and integrating the information required to fulfil the varied enquiries posed at them. It is possible to mimic one-stop fulfilment for some simple contacts without re-engineering, however this would fail to secure the improvements in efficiency that can be achieved if processes are integrated with others and allow direct entry. Therefore the priority should be to enable the citizen to fulfil most service requests through one enquiry to the council. This means that the front office staff need direct access to the information and systems managed in service departments (the back office).

Over 85% of local authority records, and all of those related to customers, are based upon addresses. Indexing records to allow one stop access means creating a standardised master address index, a Local Land and Property Gazetteer (LLPG), and linking this to all application records. Whilst this is a new process for local government, it does not mean new costs. By linking applications, information becomes more accessible, only needs to be stored once and reduces the costs of gathering and holding information.

Linking applications in this way also identifies errors and omissions in the information held. The Valuation Office has estimated that the introduction of LLPGs could secure up to an additional £26 million per annum in revenue that is currently not being collected. Similarly errors in domestic addresses will disenfranchise citizens from services or the democratic process. The DTLR has determined that the creation of a LLPG is an essential component of local authorities Implementing E-Government Statement.

It is therefore vital that, as local government is the definitive, statutory authority for street naming and property numbering, that LLPGs are created by local authorities to a standard format. The IDeA, together with their partner – Intelligent Addressing - and individual local authorities are currently creating these LLPGs to British Standard BS7666. As each LLPG will be in the same format, this allows for the integration of LLPGs into a central Hub to form the National Land and Property Gazetteer.

Since the address data that local government holds, and application data that will be linked to it, has a commercial value, it is possible to construct strategic relationships with the private sector that fund change in local authorities based upon the licensing of information and services. At its best, this licensing enables the creation of new information services not previously in existence, creating new jobs and wealth for the economy. However it is important to create an open market for such information and services or new monopolies will arise.

The National Land Information Service project has used this model and has made £205 million available to modernise the information and services, linked to conveyancing searches in local government. The Geographic Information Industry is already playing their part in the delivery of the NLIS service as channels to the solicitor and licensed conveyancer market. As the information infrastructure of local government improves, the opportunity for further channels is a possibility, extending the conveyancing application further into new service areas.

Geographic Information Services.

The Geographic Information Industry has a major role in assisting local authorities create this information infrastructure which in turn provides new markets for Local Authority information. This role can take several forms including consultancy, data capture, data conversion, application systems and GIS. The industry has already responded well to customer requirements, however there is still more that can be done. It is important that suppliers understand the needs of Local Authorities and support their customers in the development of services and systems which are of real use and value.

In order to provide confidence to authorities in choosing a supplier for specific projects, the IDeA has initiated accreditation programmes based upon specifications agreed with local government for software suppliers and service providers. The National Land and Property Gazetteer requires authorities to match together address information from several key application datasets in order to create a definitive list in BS7666 format. To ensure consistency in the NLPG, IDeA has asked data matching service providers to come forward for accreditation of their services. This process is on going and at the time of writing have several suppliers going through the process. Additionally, IDeA has arranged for the accreditation of LLPG maintenance software for BS7666 conformity. The GIS industry has responded very well to this exercise and at the time of writing, twelve suppliers have been accredited.

It is expected that similar accreditation services will be set up for NLIS – specifically for automated Local Land Charge Systems - and a pre-negotiated goods and services catalogue, where local authorities can draw down a list of data capture and information systems – is being investigated.

Information Market

To support the modernisation agenda, there is often the need for national datasets to be produced from local authority information. This is usually as a result of policy or legislative drivers. IDeA has been working in partnership with several government agencies to produce standardised national datasets with local authorities and an example of such a dataset is The National Land Use Database (NLUD). Local Government in partnership with DTLR, English Partnerships (EP) and Ordnance Survey have produced, and are currently updating, this record of Previously Developed Land (PDL) recorded as polygons at individual site level. The data has been collected to support the re-development of Brownfield land through EP and the Regional Development Agencies and to produce statistical information for DTLR.

To support the process the NLUD Partnership procured a tool for authority use, to enable data entry and to monitor the flow of PDL through the planning system. The Partnership has released the specification in order that GIS suppliers can attach polygon picking tools and/or create links from the tool to the authority's existing GIS system. Again, the industry has responded well to customer demand and the Partnership has now accredited eleven GIS suppliers. Work is underway within the partnership to develop the process to enable the NLUD (or were you intending NLPG?!!) PDL data to be exploited by the market. As with many of these initiatives, dissemination will be under licence through the Local Government Information House (LGIH). The LGIH is a limited company, owned by IDeA, and set up to protect local authority interests in the information market. It does this by providing a conduit to market for local government information which allows for both collective negotiation and risk management. It is intended that any exploitation of the data will result in a revenue stream back to local government to further facilitate the modernisation process.

IDeA is in discussion with other Agencies for the collection of other data through a similar framework, such as Common Land datasets, Public Rights of Way, Greenbelt and others.

The production of common referencing datasets, hubs for the transportation of information and national datasets, results in an infrastructure and data market which will support Tony Blair's vision to make the UK the premier country for E-business. By opening the doors on local government information, value added citizen focused services can be developed in partnership with the private sector. Figure 1 describes this in more detail:

Figure 1.

The diagram describes how by setting up Hub services based on the standardisation of specific 'key' datasets (places, people and organisations), it is possible to link public sector data providers (suppliers) together with an open market for the delivery of customer centred services as previously described in relation to NLIS. IDeA through its limited company, LGIH, is also currently designing and implementing an Electoral Register Hub – similar to the NLPG – to join up locally held Electoral Registers which will form an additional part of the referencing infrastructure for electronic service delivery. The project is known as the national Electoral Register or LASER (Local Authority Secure Electoral Register. An E-procurement Hub is also being developed to enable authorities to purchase goods and services from a number of Electronic Catalogues on-line.

Smaller private sector companies are expected to provide value added services to the 'customer centred', which are more holistic than the life event services offered by the 3 NLIS Channel providers. The depth of relationship between local government, as the supplier, and these smaller dot.com companies will be more fluid than the relationship with Hub and Channel providers. This is because the relationship, although governed contractually through the agreements between LGIH and the Hub/Channel, is likely to be directly between Hub/Channel and the smaller dot.com company. The depth of relationship between public and private sectors is exemplified on the right of the diagram.

This framework produces a Supplier, Wholesale, Retail market we are all familiar with. The use of the LGIH as the contractual hub in this framework results in the ownership of the data and technical infrastructure being with local government and the service delivery enabled by the private sector. A true Public Private Partnership.

Working locally

Opportunities for the Geographic Information Industry are also available locally. Each local authority will be developing its own programme of action to ensure that the benefits of E-Government are realised. While, it will be important to achieve certain standards and attributes for data and services to support nationally integrated services such as NLIS, it is also essential to allow for a diversity of local solutions to reflect the differing needs and priorities of localities across the country. Successful migration towards an electronic way of doing business will require local initiative and local ownership: central government or indeed the

IDeA cannot prescribe a top-down process of change and expect it to succeed. However, delivery of local services to local people requires the same geographical referencing framework to join information and services together in an integrated way. Good examples of this type of local service can be found on various local authority websites already, where private sector organisations have assisted in ‘where’s my nearest’ type applications. Authorities are now beginning to look at systems for citizens/business to have direct access to local authority systems – similar to the way banks and building societies offer on-line banking – so that individuals are able to update details, make payments etc. Access to these services will be through the address in the main, thus providing additional market opportunities for the Geographic Information Industry.

Sites of Interest

www.idea-infoage.gov.uk

www.idea.gov.uk

www.nlis.org.uk

www.nlpg.org.uk

www.nlud.org.uk

www.dtlr.gov.uk