

Underpinning Transformational Government Improving efficiency and service delivery



Case studies from the 2007 **NLPG** and **NSG**
Exemplar Awards demonstrating benefits for
authorities and citizens

How the **NLPG** and **NSG** facilitate
Transformational Government

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A message from the IDeA's Executive Director

The IDeA are delighted to be associated with the National Land and Property Gazetteer (NLPG) and National Street Gazetteer (NSG) awards 2007. The awards are about celebrating examples of where public sector organisations have joined up their services to make a real difference to people's lives locally. Responding to emergency requests, keeping streets clean, refuse collection, removal of abandoned vehicles and graffiti, urban planning and street lighting all need integrated geographic and demographic information – and data cannot be integrated without getting the basic building blocks in place. This isn't a small administrative issue, but a massive task that cuts right to the heart of what public sector organisations are about – providing the right services to real people in real places.

The strategic place of gazetteers within the wider transformational government agenda is clear. Gazetteers assist not only the obvious address based applications but also provides a foundation for identity management, customer relationship management and cross sector working.

In putting in place these building blocks, local government is already actively delivering against the government's aims and will directly support the aspirations of national priorities such as the "tell us once" project. Joint working between authorities to create and manage the gazetteers, and the delivery of this data to other organisations, represents one, if not the largest local government shared services delivered to date.

The success of the gazetteers is attributable to the hard work and dedication of authorities and to individual officers within those authorities. Local government has strived for continuous improvement of the gazetteers and whilst the migration to improved technical standards and the provision of regular updates has been challenging, the results have been impressive,

proving that the sector can deliver against single common objectives. The awards presented in October 2007 and the publication of these case studies are in recognition of this hard work and showcase the best in what can be achieved.

The use of standard geographical information shared across departments, is now more or less universal. Geographic information, and in particular the gazetteers, has become a crucial strategic issue that goes to the heart of the partnerships local government are putting in place with other local service providers. Public services are about people and places, and in the words of the Local Government Association's devolution campaign. 'Everything has to happen somewhere'.

Good councils have been getting better at knowing who their customers are, where they live and what their needs are in order to target resources more effectively. Councils are now talking about customer insight – using data to really understand people's needs and target resources accordingly. Despite the many challenges ahead, these awards show what can be achieved by authorities. These awards also place a marker down for all authorities to rise to this challenge.



Lucy de Groot
Executive Director
Improvement Development Agency



A message from the Awards Co-sponsor

Intelligent Addressing Limited is delighted to have again co-sponsored the National Street Gazetteer and National Land & Property Gazetteer Awards.

The NSG and NLPG are widely recognised as successes. Born out of eGovernment projects and a Public-Private partnership, they essentially harness a disparate range of local authority obligations in relation to addressing and street identification, and bring consistency and continuous improvement to the maintenance of these two pivotal elements of the national information infrastructure.

This does not happen by chance. Over 400 local authorities have agreed to work together for the wider good. Led by the IDeA, local authorities have together guided the processes, based upon BS7666, and have set up Regional and National workgroups to identify and enhance best practice and set manageable improvement objectives. As far as I am aware, within local government this approach is unique to these projects.

It is difficult to over-state the importance of the task to the wider government agenda. Virtually every public service, and there are several hundred of them, are delivered to a street or address. Prior to the NSG and NLPG there had been no serious attempt to build definitive national databases of reference for streets and addresses or to design them fit for the purpose of identifying all the locations that require some form of public service delivery.

Consequently, databases used to manage the delivery of public services were prone to contain erroneous or out-of-date data or, worse still, not contain data of locations that should receive public services or pay tax.

Central government policies encourage modernisation, the streamlining of service delivery, improvements in the quality of service delivery and joined-up government, as underlined by reviews from Varney, Gershon, Lyons and Transformational Government.

These things cannot occur if there is not, at their heart, a nationally recognised and effective method of identifying and maintaining information relating to location.

So these are the core reasons why the NLPG and NSG are so important. And, of course, whilst it is always possible to create a dataset initially, it is widely recognised that the toughest challenge is to ensure databases are kept continually up-to-date and constantly improved subsequently. We do not therefore view the NLPG and NSG simply as databases but classify them as continuously improving information management processes.

This is the third year of these Awards and, from our position as the central data hub managers, Intelligent Addressing is well placed to recognise how the efforts and achievements of local government are contributing to the continual improvement of these processes. As use by the Emergency Services and Central Government of the NSG and NLPG starts to expand, the professionalism of the process managers will become ever-increasingly important.

We are proud to be associated with these projects and to have contributed to the excellent performance of local authorities in meeting their challenges. I would like to add the congratulations of all at Intelligent Addressing to all the authorities recognised for their excellence by the 2007 NSG and NLPG Awards.



Michael Nicholson
Managing Director
Intelligent Addressing



NLPG Award section

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As the rain came down

Kingston-upon-Hull City Council

NLPG Exemplar Award: Winner – 'Most Creative Use'



In June 2007, Kingston-upon-Hull suffered some of the worst flooding experienced during a summer dominated by the effects of unusually high levels of rainfall over a prolonged period. According to a final report by the Independent Review Body, the flooding caused widespread disruption with damage to over 8,600 residential properties, over 1,300 businesses and many other premises including 91 of the 99 local schools.

Hull Council were faced with the immediate task of managing the flood event as it unfolded, ensuring risk to life and property was minimised, yet it was only as the response matured from the management of an emergency incident to a clear up and reinstatement operation did the full extent of the damage become apparent.

Hull Council, due to ongoing investment in and support of their Local Land and Property Gazetteer, were able to quickly map the location of all flood related service requests received through the council's centralised call centre. With a direct feed from the Customer Relationship Management (CRM) application to both an Intranet and Internet based mapping application, a real time picture of the unfolding flood event was available for the emergency response teams and residents of the city. This proof of concept was rolled out for the successful management of the clear up operation and for the delivery of non flood related services.

Outcomes

Hull Council understands the importance of the LLPG and sees it as fundamental to improvements in their policy to offer 'better services to citizen and a better deal for the tax payer'. This commitment has resulted in the unique reference numbers from both the LLPG and also the council's Local Street Gazetteer (LSG) being embedded in front line applications, such as the council's CRM, and service delivery areas.

This investment enabled the council to directly link service requests from residents and council staff, such as emergency evacuations, requests for sand bags and reports of damaged manhole covers or blocked drains, directly to an existing web based mapping tool. In less than 48 hours the MyMaps application was delivering a regularly refreshing map of flooding incidents directly fed from the CRM in close to real time.

This innovative use of existing technology and council created information, developed during a time of extreme pressure, was to prove the building block for the management of service delivery during the following months. Requests from residents for post flood services, such as removal of damaged goods, were mapped and analysed using the MyMaps application, enabling the council to prioritise requests and effectively manage the clean up operation.

The council's Flood Support System (FloSS) is also based around the MyMaps application. Results of a survey of households were added to the system, categorised by the level of support required, and this information was mapped against the known extents of the flood. This enabled households to be identified who were thought to have suffered damage but had yet to contact the council. It also enabled cross referencing with other essential service delivery areas and back office applications such as Social Care.

Key benefits

- The use of LLPG and LSG enabled the response to be far speedier than it would otherwise have been. It enabled more effective targeting of resource. It reduced duplication, error and rework. It has also helped all interested parties reach a common understanding of what work needs to be done and where, so as to continue to aid citizens to best effect.
- Creation of a sophisticated reporting and management tool for the communication and analysis of the unfolding emergency enabling the effective deployment of limited resources and reducing risk to life and property.
- Successful integration of existing technology and council maintained information for the management of the ongoing clean up and reinstatement operation, resulting in a 90% reduction in the staff resources required for house to house survey.
- Proof of concept that has been rolled out to other service delivery areas for non flood related incidents and requests; for example an improved management tool for the collection of bulky waste items across the city.

The NLPG vision made reality

Huntingdonshire District Council

NLPG Exemplar Award: Winner – 'Best Performing Authority'



The Best Performing Authority is awarded to the authority, which has the highest points score based upon a number of different parameters. The award in 2007 is a reflection of the efforts made by Huntingdonshire in maintaining and improving its gazetteer. Huntingdonshire scored maximum points, matching its gazetteer 100% with centrally held Council Tax and Non-Domestic Rates registers; by returning change-only updates (that's new houses, demolitions etc.) to the central NLPG hub on a daily basis and for updating its gazetteer to the new 2006 British Standard.

Huntingdonshire has been at the forefront of NLPG best practice for a number of years, completing the first cut of its gazetteer in 2002 and has been the recipient of several awards since that time. By the end of 2007 the council had no less than 29 applications supported by its LLPG, with eight more in the pipeline. These include some which are dynamically linked, some which are synchronised and others which receive daily change only updates. Huntingdonshire remains true to the principal and vision, with addresses being created once but used many times right across the authority.

In addition to the NLPG hub, Huntingdonshire's LLPG is being used by Cambridgeshire County Council for its call centre, in strategic planning for schools, for customer feedback and by Trading Standards. Beyond this, and the subject of a separate case study in this booklet, the Cambridgeshire and Peterborough Fire & Rescue Service are now using the Huntingdonshire LLPG – a forerunner to its wider use by fire services across Britain.

Huntingdonshire's LLPG has had a direct impact on the council's service delivery and its internal processes for some time now, and it continues to improve year on year. By joining up processes, improving efficiency and providing better services to citizens and businesses, Huntingdonshire has proved an exemplar of best practice and an outstanding example of the NLPG vision made reality.

Outcomes

Huntingdonshire is continually moving on, opening up the possibilities of sharing its data to transform business processes and facilitate collaboration. The Huntingdonshire LLPG now has more than half a million cross references to other datasets. Every department within the council and increasingly external organisations, via the NLPG hub, can now leverage the richness of this data asset. The recent exercise with the Cambridgeshire & Peterborough Fire and Rescue Service also highlighted the fact that Huntingdonshire's LLPG had gone far beyond the Postal Address File (PAF), proving that the NLPG project has succeeded in providing greater detail than any existing dataset. Such is the rigour of the process that many are now beginning to realise the potential to add further data, which will be useful to many different organisations, including utilities, and the emergency services.

Key benefits

- Recent data matching exercises have proved the value of the NLPG vision and concept, and will inspire similar authorities to follow suit.
- The achievement of a 100% match with Council Tax and NNDR has generated exceptional confidence in the data at a local level
- Third parties outside the council are beginning to see the value and the possibilities of adding further data to facilitate and support a wide range of activities.

Joining up service delivery

Plymouth City Council

NLPG Exemplar Award: Winner – 'Best Business Process Transformation'



Plymouth City Council has realised significant savings, increased service efficiencies and improvements in customer care with their 'create once, use many times' approach to address data. An early adopter and 'flag carrier' for the NLPG; the council identified at an early stage the need to transform their LLPG from a standalone product to a corporate resource that could be accessed by all staff to provide improved services to the citizens of Plymouth.

Outcomes

Plymouth's first steps on the road to a centralised address resource involved the consolidation of departmental data silos, including 10 disparate address databases and 40 datasets associated with the council's geographic information systems (GIS). Rigorous cleansing and ongoing management has resulted in a centrally held and maintained address resource and a reduced data administration burden. Plymouth's NLPG Team continue to work with individual departments increasing the accuracy and integrity of the dataset from a starting point of just 55% to an objectively measured and regularly maintained 95%.

The NLPG, through a series of dynamic links and update procedures, feeds departmental back office systems and corporate IT applications, including the council's corporate feedback mechanism 'Have your Say', the authority's CRM and Plymouth's corporate GIS and Intranet based mapping portal. Other departments benefiting from the resource include Environmental Health, Land Charges, Education, Council Tax and Business Rates.

In addition to specific departmental applications front facing staff can access the NLPG to assist in their day-to-day dealing with residents of Plymouth. Staff in the council's central contact centre and First Point Contact Team locations can access the data, via the Intranet based mapping service, helping with the resolution of customer queries at the initial point of contact, reducing the need for specialised departmental staff resources and improving service delivery and customer satisfaction levels.

As a result of the tangible improvements in service efficiencies achieved through the integration of the NLPG in every day applications and procedures, confidence in the data within the council is very high. As a result staff productivity is boosted, morale is high and the NLPG Team has won internal acclaim and recognition for its contribution.

Key benefits

- The NLPG is recognised internally as one of the central platforms for delivering improved services to residents and underpins corporate IT applications, such as the centralised contact centre, public information facilities and online services.
 - Confidence in the data is high and individual departments are specifying that back office systems dynamically link to the NLPG. The data is also being used outside the council's own service delivery area with the authority's Civil Protection Unit using the NLPG when interacting with the numerous agencies, both public and private who are involved in public safety.
 - Through the use of the NLPG, Plymouth is achieving measurable improvements in efficiency and service delivery, contributing to an improvement in the Corporate Performance Assessment (CPA) rating from poor/weak to two star/improving well.
- The LLPG has become a central component of more and more services, with the LLPG continuing to underpin significant financial, customer service and operational benefits.
 - Consolidation of address datasets is saving an estimated £150,000 per annum by eliminating the duplication of work. Additional savings are being realised through a reduction in staff resources and the related infrastructure required for frontline query resolution.

Safety in numbers

Dartford Borough Council

NLPG Exemplar Award: Highly Commended – 'Most Creative Use'



GIS has long been used for crime and disorder analysis but pulling the information together has never been easy. In Dartford the Public Safety Unit set up under the auspices of the local Dartford and Gravesham Crime and Disorder Reduction Partnership (CDRP), and staffed by officers from Kent Police and Dartford Borough Council, found they had similar problems.

Dartford Borough Council has a well established LLPG, and the Property Team decided to use this to help make sense of the crime and disorder information originating from partnership groups including; Kent Fire Brigade, Dartford Council Enforcement and Regulatory Services, Kent Police, Council Waste and Recycling, Kent County Highways, Council Housing Services and Local Bus Services. The LLPG is now being used to show the location of problems within the Borough. The analysis and response to this information is being used to guide policy and actions.

The information is combined in a single database using the UPRN as the location reference with each entry date stamped. The type of information captured includes, low-level environmental crime such as fly tipping as reported by the CRM system, which is already linked to the LLPG. The Housing system supplies information relating to vandalism and graffiti, while the Police and Fire provide information on criminal damage and other similar incidents. The Bus Service provide information of incidents on local bus routes, such as attacks against drivers and vandalism. In each case the location is captured using the LLPG. This process will be automated as more systems and organisations, like the Police and the Fire Service, start to use the LLPG directly.

Once in the database, a GIS is used to analyse the data over given time frames, and hot spot maps produced, with each incident colour coded by organisation.

Outcomes

Every two months the findings are presented to the Criminal Damage and Environmental Crime Task Group. Members of the group, which is essentially a sub-group of the CDRP include; Kent Fire, North Kent Police, council housing, British Transport Police, Arriva (the local bus company), South East Railways and Kent County Council Highways. The output, using projectors and interactive white boards, is presented to provide evidence for monitoring the performance of crime and disorder policies, such as the impact of ASBOs, CCTV installations and Alcohol Control Areas. Maps are also produced to highlight problems and determine strategies for specific areas.

Feedback from users has led to new information being added to the gazetteer, for example every CCTV camera now has a UPRN. Subsequently this information has been combined with height and building data to create view shed models, which show the areas the cameras can actually see. The Fire Service has also used the information, placing fire posts around Dartford Heath in order to enable the public to identify the area which might require a response. Each fire post now has a UPRN.

Police have used the information to target specific areas; for example a particular estate where graffiti and anti-social behaviour incidents were becoming a cause for concern. Working together the graffiti was removed and covert cameras installed, resulting in a 40% drop in crime over a 4-week period.

Since the LLPG is used by every council system it is simple to extract information as and when it is required, something the Police are starting to make use of to support specific operations. Hot spot mapping facilitates visual linking, for example illegally dumped rubbish has the potential to become a focus for arson.

Mapping the relevant data sets helps to coordinate a response to specific incidents and provides information to formulate strategies for containment, detection and prevention.

This project is an excellent example of Transformational Government using technology to determine policy and improve service delivery, whilst having a real impact on citizen's daily lives. It has brought together a number of organisations and provided them with a framework to share data and understand the potential for specific data mining. This intelligence gathering has fostered cross-agency collaboration and aided decision-making.

The Government Office South East (GOSE) has submitted a number of the operations facilitated by this data sharing and analysis to the Home Office as examples of best practice.

Key benefits

- Multi-agency collaboration, supported by evidence, that informs policy and action.
- Crime prevention and reduction.
- The LLPG is recognised as the main source of address information within the council and by outside agencies. They now realise its potential as a common reference system for data matching and for data mining across disparate systems.
- Exposure of the LLPG to external agencies has helped data validation, improved quality and data management.
- Significant added value has been generated at no additional cost.

A building block for success

Suffolk Coastal District Council

NLPG Exemplar Award: Highly Commended – ‘Best Business Process Transformation’



In 2003, as part of its major change and modernisation programme, Suffolk Coastal District Council began an ambitious IT project that was to last two years, cost £½ million and redefine and reprocess working practices across the organisation. The project had three unique yet highly complex elements which, when completed in combination, would provide a common and more efficient approach for the handling of all land and property based data within the council.

Integral to the successful completion of the project was the creation, maintenance and use of a single, standardised address database. The early recognition of the importance of this resource as the cement that bound together all elements of the project; such as the roll out of the council's GIS, the digital capture of essential historical records, as well as business processes throughout the organisation. This enabled the completion of the project on time and under budget.

Outcomes

Suffolk Coastal created a master address list by combining disparate datasets from five distinct departments: Planning, Environment, Electoral Register, Non Domestic Rates and Council Tax. Unfortunately, due to duplication of data between departments, non standardised naming formats and even different data storage formats, the 'master' list contained 112,975 versions of the addresses for the estimated 60,000 properties within the district.

By scrutinising individual records on each and every map tile Suffolk Coastal produced a LLPG containing a realistic 78,847 records, this included the incorporation of undeveloped parcels of land for planning application processes. Once completed the Street Naming and Numbering function was incorporated within the remit of the LLPG team to ensure all new addresses were created to a consistent format, and that the LLPG received regular, daily updates.

The roll out of the council's new GIS was seen as crucial to the ongoing successful implementation and maintenance of the LLPG data. In addition using the UPRN from the LLPG, more than 300 layers of geographically referenced data have been created, integrated and used daily. The GIS is now providing accurate and consistent data across all business areas, reducing the administrative burden of maintaining multiple datasets and improving access to map based information. The GIS has also enhanced the council's ability to analyse information and automatically produce detailed ad hoc reports and statistics.

Having implemented an organisation wide address database and given access to this information through the use of its GIS, Suffolk Coastal addressed the issue of transferring information from paper records to digital formats. Historical planning records dating back over 50 years, including documents, site plans, correspondence and internal documentation, were converted to LLPG linked, GIS compatible digital data. This has improved access, enhanced service delivery and will form the foundation for a one stop shop for property information on the council's website.

Key benefits

- Creation of a centralised address resource that complies with national standards is trusted, and therefore integrated within business processes and service delivery throughout the organisation.
- Roll out of the council's GIS to every department with an estimated 300 plus active users improved the council's map handling capability, standardised data capture processes and enhanced data analysis to deliver tangible savings, efficiencies and improvements in service delivery.
- Transfer of historical information dating back over 50 years from paper to digital format in preparation for the launch of a one stop online property portal has also increased access to planning information throughout the organization.
- Well placed to deliver Government's service transformation agenda.

Sharing the knowledge

Huntingdonshire District Council

NLPG Exemplar Award: Highly Commended – 'Most Creative Use'



When the Mapping Services Agreement (MSA) came into being in 2005, Fire Services and Police Forces were included and as a result gained access to the NLPG. In 2007 it was announced that the NLPG would be one of the key datasets for the 'FiReControl' project, a major DCLG initiative that is working to move from the existing 46 Fire and Rescue control room infrastructure to 9 new amalgamated Regional Control Centres (RCC).

In one of the first projects of its type and ahead of any government directive, Huntingdonshire District Council and the Cambridgeshire and Peterborough Fire & Rescue Service (CFRS) have been working together to enhance their property information. The result is better, more comprehensive and up to date operational address data for the Fire Service, the local authority and any users of the NLPG, plus some significant efficiency gains.

The process was started off by matching Huntingdonshire's LLPG against data held by the Fire Service. Interestingly while Huntingdonshire's gazetteer was not missing any major buildings, it gained considerably from additional information acquired from CFRS and vice versa. Huntingdonshire had already added many Objects without a Property Address (OWPA), such as playgrounds, churches, open spaces, electricity sub-stations and water pumping stations. CFRS data included accurate XY coordinates, organisation names and appropriate property notes, such as the number of storeys, vital for choosing equipment prior to attending a fire. In addition the data included building codes used for fire risk assessment.

Working together has proved to be good audit exercise for Huntingdonshire's own gazetteer and many secondary properties from sites with multiple buildings, such as schools, universities, hospitals, military bases have now been included in the Huntingdonshire LLPG, all with precise coordinates. As CFRS move towards using the NLPG for its address information it will be able to make use of 'my NLPG' to submit any updates that arise through operational intelligence, which will then be validated by the council prior to inclusion in the gazetteer.

Outcomes

Having a single source of address information means considerable time saving for CFRS. Firstly there is no longer a need to synchronise secondary property data with AddressPoint every time it is updated. The benefit here is twofold, firstly the removal of a process and secondly improved data currency as the NLPG is updated daily. Additionally CFRS will no longer need to receive street naming and numbering notifications, as these will automatically appear in the NLPG.

NLPG conventions will also help the Fire Service in other ways. Being able to refer to open spaces using a Unique Property Reference Number (UPRN) aids cross-organisational working, during the risk assessment of temporary events such as fêtes and festivals. The capture of non-occupational premises such as monuments and similar structures, adds detail to the collection of incident location, enabling the Fire, Police and council to have one unique reference for all correspondence.

The range of properties now held in Huntingdonshire's gazetteer is more diverse than datasets previously used by CFRS, which were largely based on mailing addresses. The matching process and the inclusion of secondary properties without postal addresses on sites with large numbers of buildings, means that the gazetteer is now better suited to serving both CFRS and the council.

The close collaboration between Huntingdonshire and CFRS meets the aspirations of Transformational Government through improvement of the gazetteer, which underpins so much of Huntingdonshire's service delivery and now the Fire Service. The efficiencies delivered through data sharing are in line with Gershon's requirements for rationalisation of systems and processes, and the avoidance of duplication of effort, at least 15 hours per week in terms of manual data input and validation.

Key benefits

- Working in joint partnership with the Fire Service has achieved the principles and recommendations by Gershon and Varney.
- An up to date gazetteer which has benefited from additional data supplied by both parties.
- No duplication of effort in gazetteer maintenance moving forward.
- Significant efficiencies and better operational processes.
- Established a wider understanding of Fire Service requirements .
- Benefits of this collaboration have been shared with other Cambridgeshire authorities which have initiated similar programs.
- Further raises the profile of the NLPG.

At the heart of a virtual regeneration

Blackpool Council

NLPG Exemplar Award: Highly Commended – 'Best Business Process Transformation'



Blackpool Council's LLPG is at the heart of a number of community driven transformational services designed to improve community life within the Borough and develop and foster stronger communities in Britain's most popular holiday destination. While Blackpool's Master Plan delivers physical change to the northwest seaside town; Blackpool's eCommunity strives to develop virtual regeneration in partnership with other public sector organisations, private business, education and voluntary stakeholders.

Blackpool has understood and made a commitment to the NLPG, dovetailing it into local council ICT strategy, the local eGovernment and online service delivery agenda and the development of a community learning and service strategy for the borough.

Blackpool's virtual regeneration includes specific community driven projects designed to encourage choice, collaboration, co-operation and creativity.

Outcomes

Blackpool4Me, a unique community interaction model, uses the NLPG to provide evidence of usage in order to secure funding from the European Regional Development Fund. Part of the I-CAN (Interactive Community Access Network) project, the initiative provides a rich source of up to date community information while empowering and supporting local organisations by encouraging them to create, maintain and share their own information online.

Another initiative that forms part of Blackpool's goal for stronger communities is the council's Customer First programme. The Customer First Initiative is a key council priority as a Community Plan Negotiated

Action to improve the accessibility and quality of all council services and a key driver in making 'one Blackpool, one council' a reality. The Customer First Service, borne out of the Customer First Initiative, is designed to develop a quality information and advice service providing a single point of contact and enquiry resolution for residents, service users, businesses and visitors to Blackpool. It also includes a centralised call centre with CRM software, centralised Customer First Contact centre and online enquiry facility. Blackpool's LLPG data is an intrinsic component for the successful implementation and delivery of both programmes.

Blackpool 'Where I live and work' is an online search facility providing residents, businesses and visitors to the town with access to an array of council service information and local amenities. Using the LLPG data, partial addresses or postcodes entered into the online search facility are compared against the LLPG data for a match. The geographical/positional component of the LLPG is used to locate the nearest amenity or service or to provide links to relevant council databases or external sites. Returned information is displayed either in text form or in an online mapping window.

Key benefits

- Blackpool has clearly understood the importance of dovetailing the NLPG into local council ICT strategy, the local eGovernment and online service delivery agenda and the development of a community learning and service strategies for the area.
- With a range of transformational services, such as Blackpool4Me, Customer First and Where I Live and Work, all built around the LLPG, Blackpool has shown creativity and innovation combined with technical excellence and an overriding ethic that places the needs of the customer first.
- Use of the LLPG has secured ongoing funding from European Regional Development Fund for the multi-award nominated Blackpool4Me initiative and achieved additional external funding for the council's Where I Live and Work online search facility.
- Blackpool4Me received a nomination for the 2006 New Statesmen New Media Awards and made the regional heats of the 2006 Digital Challenge Award, while Blackpool's Customer First Programme was shortlisted for the 2007 Intellect, Socitm and SOLACE Local Government IT Excellence Awards.
- Blackpool's Customer First thinking is transforming the design and management of service to its customers. This has led to an improved satisfaction rating, lowest cost to deliver and motivated workforce. All of which helped the council to achieve an 'improving strongly' and increase from 2 to 3 stars in the Audit Commission's 2007 annual CPA.
- The LLPG powered Where I Live and Work facility has further increased customer service levels, reduced the administrative resource required to answer queries from residents and helped Blackpool meet eGovernment targets.



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The road to success

Devon County Council

NSG Exemplar Award: Winner – ‘Best Gazetteer Integration’



By working together Devon County Council and the eight District Councils have created a single, comprehensive and well maintained street gazetteer, covering the whole of the country's largest county road network. This example of joined up working has delivered significant advantages to residents, businesses and both tiers of local government. The resulting database is driving improvements to the network, improving delivery of council services and achieving higher levels of customer satisfaction.

Outcomes

At the onset of the project, a decision was made that the County Council would take responsibility for the creation, management and day-to-day maintenance of the street gazetteer. While the importance of the contribution of not only the District Councils, but also of other agencies and members of the public, was recognised as fundamental for success, the understanding of the savings that could be made was critical in light of decreasing budgets.

The result of this is a gazetteer that all authorities in Devon have confidence in and are therefore utilising to great effect. The database is closely integrated with the District Council's Local Land and Property Gazetteers to ensure all streets are recorded, including those without associated properties.

The LSG is also used as a tool to facilitate mobile working and as a feed to other District and County level systems and service delivery areas.

One specific example is the use of the data with Devon's centralised Customer Service Centre. The benefits of this integration are twofold: enquiries received through the contact centre, for example a

faulty street light, can be accurately positioned and therefore identified at the first point of contact. This reduces the length of time it takes to process each request and increases the efficiency of the operation through to fault resolution. In addition contact staff, through their interactions with members of the public, feed information back into the database for verification by the NSG team and District Councils. This application of the NSG data alone has resulted in savings of £100,000 per annum according to a Gershon time and motion report.

The NSG is not only used as a tool to improve front line services, the data is also integrated within the County's Asset Management System driving a range of programmes, web applications and the council's GIS.

Key benefits

- Creation of a single, county wide street gazetteer, currently around 30,000 unique streets and 90,000 street units, with over 650 users makes this one of the largest and most comprehensive street information projects in the country.
- 'A create once use many times' approach by both County and District Councils reduces duplication of effort, and data, and ensures a well maintained street gazetteer that is fuelling improvements to the road network, service delivery and customer satisfaction.
- Joined up working between District and County Councils resulting in shared ownership and therefore confidence in the data, resulting in organisation wide use, improved communication and co-operation.
- Savings of £100,000 per annum based on the transformation of a single business process, and additional, as yet uncalculated, savings can be estimated by projecting this amount across all service delivery areas.

Size matters

Devon County Council

NSG Exemplar Award: Winner – 'Best Business Integration'



In light of decreasing budgets, Devon County Council has undertaken a massive project to accurately manage every asset associated with the highway in order to maximise their road maintenance performance. The overall objective was to introduce high levels of automation in order to reduce human error, data duplication and unnecessary administration and improve data sharing, inter-departmental communication and service delivery efficiencies.

The creation of an Asset Management System comprising of individual, integrated work modules driven by the County's Local Street Gazetteer was a highly ambitious project for one of the country's largest counties.

Outcomes

Size matters! With 12,820 kilometres of streets, made up of 30,000 unique streets and 90,000 street units, Devon has the largest Highways Authority road network in the country. On top of this, the county is home to 4,700 kilometres of Public Rights of Way, 13 million square metres of roadside grass and 72,000 street lights, all of which must be managed and maintained to exacting standards regardless of increasing budgetary constraints.

In order to maximise investment in the highway, in terms of time, money and resources, to maintain and build on existing standards of service and maintenance, Devon used its Asset Management System. The system is comprised of many individual programmes for applications such as Accident Management, Public Rights of Way and Inventory Management, which are all linked through the common use of the LSG. In total it is estimated the system contains more than 4 million individual asset records.

The integrated use of the LSG within Devon's Asset Management System is facilitating a truly joined up approach to the management, maintenance and continuous improvement of the road network and associated assets. These systems currently work together to provide a streamlined service from CRM to the Asset Management Suite. However Devon is heading towards an advanced strategic overview, for example, routine maintenance programmes will be scheduled to reduce unnecessary disruption through the consideration of other works on the highway, such as verge cutting or post accident investigations. Also unusual levels of reported faults or incidents will be analysed using all available information rather than being considered in isolation.

Additional benefit is achieved through the integration of the LSG with systems that do not fall under the Asset Management System banner, such as Land Charges Records to assist the eight District Councils with the consideration of Planning Applications, land and property transactions and Devon's centralised Customer Service Centre.

Key benefits

- Creation of a comprehensive street gazetteer for the largest local authority road network in the country has facilitated the capture, management and application of information relating to more than 4 million associated assets and features.
- Devon's Asset Management System has enabled joined up government through improved access to shared information and integrated back office systems, reducing the administrative burden, improving operational efficiency and delivering benefits to residents.
- The use of the LSG is critical to the integration of individual elements of the system, placing all information in its wider, real world context, to enable Devon to transform the management of the road network and wider service delivery.
- A Gershon time and motion report has identified savings of £100,000 per annum based on the integration of street data within Devon's centralised Customer Service Centre. Additional savings can be estimated by projecting this amount across all service delivery areas.

A working street gazetteer

Southend-on-Sea Borough Council

NSG Exemplar Award: Winner – ‘Best Performing Authority’



Southend-on-Sea Borough Council has worked hard on its gazetteer and were the best performing authority in 2007.

When Southend Borough became a unitary authority in 1998 it inherited the GIS based system originally developed by Essex County Council. It was then developed further by its outsourced contractor, to be BS7666 compliant. It has been in place for nine years providing a firm basis for LSG improvement during that time. The NSG is fully detailed with full road geometry painstakingly created from as built drawings, mapping and aerial photography. The council inputs all new roads information into the system prior to adoption so it is always up to date. The system also holds data from traffic committee reports when any traffic scheme has been passed and approved.

The value of a Local Street Gazetteer can be judged not only in terms of its currency but also by how much useful information it holds. Southend's LSG has a wealth of Associated Street Data (ASD); information which might prove useful to anyone interested in the council's roads and streets. The Southend LSG details whether a road is publicly maintainable; whether it has any special designation; speed limit; and reinstatement data for re-surfacing of roads. It is also used for land charge searches, enabling the council to respond promptly to solicitor's conveyancing enquiries regarding planning and road status.

The Southend LSG is managed by the highway information team and made visible to other departments via an intranet GIS. The LSG is therefore available to the street works and maintenance department who link it with their street works application. Street works and maintenance use the application to enter details of any street works notifications received from utilities companies and those scheduled by the council itself. The highways department then validates these. Once validated the locations of scheduled street works are input into the system as polygons to show where the road works will

be taking place. This can then be viewed council-wide. The system enables anyone within the council to see what is happening on the roads and what is scheduled to happen in the future.

The Best Performing Authority award is a reflection on the efforts made by Southend-on-Sea in maintaining and improving its gazetteer. Southend undertook to deliver updates to the NSG hub every month and gave it priority. Data cleansing is done as soon as compliance checks highlight errors. The system logs the scheduled time when the road works are supposed to be taking place and will send alerts if the works take longer than expected. By taking this approach Southend can keep on top of all developments and is able to ensure that their LSG is a regularly used council asset.

Outcomes

When a local press release about winning the Exemplar Award reached Anglia Television, they contacted the council to find out more. A news piece followed, which appeared on live television news on the 6th of December 2007. The piece focused on street works and explained how Southend's LSG was helping to better coordinate street works in the Borough. The piece brought the point home... that it is not easy to coordinate street works when there are so many agencies wanting to dig up the road. Closer coordination facilitated by the council's high quality LSG leads to saving time and money and reduces the misery of road congestion suffered by the general public. Concluding the television presenter said that the efforts made by the Borough were "a victory for common sense".

Key benefits

- All council information about streets and roads is available council-wide.
- The LSG supports more than street works and is a tangible and appreciating asset.
- The quality of the NSG underpins the LLPG to help drive better joined up government.

From nowhere to knowing where

Somerset Highways

NSG Exemplar Award: Highly Commended – ‘Best Business Integration’



Somerset Highways is a partnership between Somerset County Council and its Highways Service Provider, Atkins.

When Somerset County Council decided to produce its LSG, it fully recognised the opportunities that it offered and was only ever interested in producing a version to level 3, complete with the full street geometry.

Somerset was not starting from scratch, as they were able to extract detailed information from the road centre line network they were developing from various sources, including a large number of paper maps.

The resulting USRNs were circulated to street naming and numbering officers in the District Councils in order to validate and produce a first cut of the gazetteer, which included 6600km of road. Adding to the detail of the gazetteer was considered an opportunity, not an administrative overhead and a rich vein of Associated Street Data was added. This included essential highway information relating to bridges, retaining walls, ancient monuments, traffic sensitive streets, cellars, and level crossings.

This exercise triggered another – a comprehensive search for road schemes, planned and unplanned, and road scheme requests that lay locked away in a myriad of drawers within the highways department. Details of more than 2000 schemes were put into a spreadsheet for future reference. In 2001 the coincidence of a large number of schemes from both utilities and the County Council’s own planned street activities in Yeovil led to a one off mapping exercise of all the schemes in the town in order to coordinate the work more effectively. What was needed now was an effective solution to enable Somerset to plan and co-ordinate all schemes and street works right the way across the county. With a top class street gazetteer, an up to date archive of road schemes and the necessary mapping skills, Somerset had the wherewithal to do just that.

Somerset Highways came up with a simple tool to bring about this coordination. The tool is known as the Highway Scheme Proposal Register (HSPR), it includes all significant highway proposals and makes them available as a dataset viewable across the highways department via the council's intranet and a desktop mapping application.

Using the new system every piece of work undertaken within Somerset has to have a unique reference number. Any planned works by the statutory undertakers or the council itself, such as re-surfacing, kerbing, drainage etc., must first be submitted to the highways department. The department gives it a unique number, provides the shape and extent of the works for mapping and logs the contact details, dates and current status. These are joined together and published for access by the desktop mapping system.

Outcomes

The HSPR has been extended to include environmental aspects to enable the highways department to comply with its Biodiversity Action Plan. A wide range of mapping datasets derived from the development of the LSG and the HSPR are now available to users across the county. These include traffic sensitive streets, streets affected by engineering difficulty, reinstatement categories and streets affected by road closures and associated diversionary routes.

Together the LSG and the HSPR have enabled Somerset to plan and coordinate its highway work more efficiently, to deliver cost savings from cooperative scheme working, whilst reducing road closures and traffic disruption.

The quality of the LSG allied with the HSPR offers all sorts of opportunities for the future. Linking past, present and future scheme work with levels of public satisfaction in the highway network, is presently being explored whilst GIS scheme data also offers the ability for more accurate and accessible works records which are important, for example, under health and safety legislation.

Key benefits

- The quality of the LSG has enabled its shape and referencing information to be used to map and publish street work activity such as road closure plans and diversionary routes to all affected parishes and councillors.
- The HSPR includes all proposals likely to affect the highway, including special events such as festivals and traffic diversions initiated by the police.
- The value of map-based representation of scheme proposals and the availability of an increasing wealth of other information has been met with real enthusiasm by users and helped deliver real understanding and better working practices.

Taking it to the streets

Tameside Metropolitan Borough Council

NSG Exemplar Award: Highly Commended – 'Best Business Integration'



In the past information locked away in a database often has a single use, but if there is one thing that the eGovernment initiatives have revealed it is that there is very often more than one use for data. As a result, application software has become more open enabling data to be shared across systems with tangible benefits, resulting in better business processes and cost savings. The evolution of Tameside Metropolitan Borough Council's Street Lighting function is a good case in point.

Tameside MBC's Street Lighting Unit has always realised the value of good information and has spent considerable time, effort and money in building up its database of lighting columns complete with location coordinates. Using this information the Street Lighting Unit could receive customer fault reports, specify items for repair and organise routine maintenance. This was all managed using a Highways Management system.

The Street Lighting contractor would receive electronically, one order per street created by this system, and then organise the work using another job costing and stores management system. Once necessary repairs had been carried out, the contractor would return the job tickets and complete them on the job costing system, creating an electronic interface file for the Street Lighting Unit for input back in to its system. The contractor would then make a claim for payment and subsequently get paid against a schedule of rates. As a result the work completed was recorded against the street, but not as a history against the lighting column.

The Street Lighting Unit's Highways Management system is also the system used to manage Tameside's Local Street Gazetteer, enabling all the lighting column data to be held as individual asset items associated to

the street data with a full list of attributes for each lighting point. Over time a web based front end has been developed to enable citizens to report issues directly in to the system via the council's website using the same screens and forms as the CRM in the call centre. Further developments delivered a map based view of street lighting inventory, which enabled the Street Lighting team to precisely locate every lighting column. This further streamlined the process and improved the accuracy of information sent to the contractors carrying out the repairs.

These improvements lead to the elimination of the contractor's management system in this process. Now the Street Lighting support team receive fault reports and then identify the correct lighting column. They then raise multiple orders, which are downloaded on to mobile devices used by the field engineers carrying out the work. The mobile devices allow engineers to log the work carried out against a single lighting column so that when the devices are re-synchronised with the base system the inventory is automatically updated. Because there is now an historical record of all maintenance and repair against each individual column it is much easier for the Street Lighting team to manage the assets. This process also triggers the financial claim for work carried out against the standard schedule of rates.

Outcomes

Tameside MBC has made considerable gains by leveraging the quality of its street lighting asset data. One system now manages the Local Street Gazetteer and the whole street lighting repair and maintenance process while paperwork has been reduced through the use of mobile technology. Service delivery has been improved as a result of these efficiencies and costs have been reduced.

Key benefits

- Street lighting repair and maintenance is now handled by a single system.
- Paperwork to and from field engineers has been eliminated through the use of mobile technology.
- Bulk maintenance activity can be planned more effectively.
- Fault repairs are normally carried out within three days, a significant improvement.
- Repair and maintenance activity automatically keeps the street lighting inventory up to date.
- Further efficiencies will be possible when the web mapping interface is made available to the public, enabling them to identify and report faults with individual lighting columns themselves.

Proving protocol pays

Kent Highways Alliance

NSG Exemplar Award: Highly Commended – 'Best Gazetteer Integration'

Kent operates a formal partnership between Kent Highway Services (KHS) and private sector service providers Jacobs, Ringway and TSUK. This KHS Alliance partnership has established a set of business processes, protocols and tools for the management and integration of gazetteer and highways data.

Data integration has produced cost savings that have subsequently resourced investment into improvements to the quality, contemporaneity and completeness of Kent's Local Street Gazetteer and Highway datasets.

Outcomes

Kent's LSG and Highway Network covers 1,500 square miles; comprises 22,000 Unique Street Reference Numbers; 120,000 items of Associated Street Data and 30,000 Pavement Management Sections. These are spatially located using a single GIS representation of 10,000 kilometres of road centreline.

The three essential elements of integration are:

1. The Kent Highways Network Data Management Team (NDM) – a 'single source of truth' that administers all changes to the Kent LSG, Street Works Data and the Highway Network.
2. A set of protocols and operating procedures for managing incoming data from definitive sources and the delivery of data to internal and external stakeholders in the Kent LSG.
3. The Network Change Management System – a custom application which audit trails all data changes and manages data editing workflow.



Prior to 2005, additions and changes to the Kent LSG were received in ad hoc fashion as paper documents without defined formats or data checks or routine; this was an administratively inefficient process.

Kent Highways and district councils cooperated to agree that the Kent LSG's definitive source of street data should in future be the Local Land & Property Gazetteer Custodians' and that the LSG Custodian should routinely supply spatial data back to LLPG Custodians'.

The switch to district LLPG data as the direct source of county LSG data was achieved using protocols to promote routine receipt of relevant, quality checked and properly formatted electronic data.

2006 saw a 30% gain in the efficiency of maintaining Kent Gazetteer and Highway Network data. These cost savings were re-invested in programmes which in turn generated further quality improvements and efficiency gains to fund the current and future developments. These are establishing the Kent LSG as the cornerstone of highway related applications and services.

In 2007 the NDM Team used these efficiency gains to support development of Kent Highways' Network Change Management (NCM) System – an Oracle database that provides an audit trail linking all LSG and Highway Network changes to incoming e-documents. The NCM System also promotes network management efficiency by providing time alerts for editing actions and data queries and by regular reporting of work completed and work outstanding.

Key benefits

- A comprehensive county street gazetteer increasingly well matched to district council property gazetteers, providing maintenance of a single spatial backbone for displaying both gazetteer and highway data.
- 30% efficiency gains realised through the transformation of just one element of the data life cycle being reinvested in a data quality improvement programme with future gains earmarked for work with Kent Police in support of the Emergency Services Gazetteer.
- A budget neutral initiative that has used business process reengineering to transform inefficient and outdated dataflow pathways into a reliable, efficient and provable data system managed by a recognised and accessible centre of expertise.
- A successful Public Private Partnership driving improved communication and joined up working among Local Authority partners, external agencies and commercial organisations resulting in improvements to frontline service delivery.

Picking up the pieces

Kingston-upon-Hull City Council

NSG Exemplar Award: Highly Commended – 'Best Gazetteer Integration'



In June 2007, the city of Hull experienced unusually high rainfall over a prolonged period resulting in flooding that caused disruption and damage to more than 8,600 residential properties and over 1,300 business premises. As worried residents began calling the council to request sand bags, report blocked drains and missing manhole covers, the scale and magnitude of the situation became apparent. Communication between council departments, external agencies and the residents of Hull was paramount if the risk to life and property was to be minimised.

The council's existing web based mapping tool was therefore modified to reflect affected roads across the city by using the unique reference number contained within the Local Street Gazetteer. This gave an easy to interpret view of the flood event both as it unfolded and during the ongoing clean up operation.

Outcomes

Hull City Council, through previous investment in their street gazetteer, was able to respond quickly to the unfolding emergency. The authority, as part of a commitment to provide 'better services to citizens and a better deal for the tax payer,' had already embedded street reference numbers within core council services and front line systems (such as their Customer Relationship Management application). Hull has also ensured that their street gazetteer is maintained to the highest level ensuring the data is up to date, geographically accurate and consistent in quality.

As reports of rising water levels on the city's roads were received by the council's centralised call centre, Hull Connect, they were automatically referenced using the unique street reference number from the LSG. A simple modification to the existing web based mapping portal, MyMaps, meant that effect of the flooding could be displayed in virtual real time on the council's website.

This real time mapping of the unfolding emergency facilitated the effective deployment of limited resources, targeting the worst hit areas of the city and therefore the residents and properties most at risk. Also, by making this information readily available on the council's website, unnecessary calls to both the council and emergency services were reduced as worried residents could track the flood effect and have confidence in the council's awareness and knowledge of the situation. The system also enabled residents, workers and emergency teams to plan essential journeys in the days following the flood, as some roads remained closed for the pumping of floodwater.

The flood response quickly matured from an emergency incident management situation to a clear-up and reinstatement operation. Using the record of flood damage generated by the online mapping system, Hull City Council was able to methodically target areas of the city most affected by the floodwater. This increased the speed with which they were able to respond and the efficiency in provision of clean up and support services.

The street level flood map was also used for post event analysis, modelling the path of the floodwater against other features and the city's topography for the prediction and prevention of future incidents and as evidence to support the council's application for emergency and relief funding.

Key benefits

- Risk to life and property was managed through the effective and timely communication of flood events across the city, providing citizens and emergency response teams with real world, real time information.
- Council and emergency service personnel were deployed where needed, targeting limited resources at the worst hit areas and identifying residents and properties most at risk from the rising flood water.
- An accurate record of the flood event was created and maintained for use during the ongoing clear up and reinstatement operation enabling ongoing targeting of resources, grants and support and as evidence for emergency and relief funding.
- Post event analysis was facilitated by comparing the full geometry of the affected road network against other features such as the city's drainage system, topography, surface cover and land use, to help predict and prevent future incidents.



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Catching up and keeping abreast of change

Salford City Council

NLPG Most Improved



Salford is a fast-changing inner city area, which borders central Manchester and includes the rapidly developing Salford Quays. During 2007 Salford had one of the highest new build rates in the northwest, and this trend is likely to continue in the coming years.

When Salford City Council planners wanted to carry out an Employment Site Study to guide future development in the city, they found that the task was more difficult than anticipated. Precise business location information would be required to collect data such as the type of business, floor space information, the number of employees etc. In order to ensure that the study was comprehensive, an accurate property database was required and the council's LLPG was the obvious candidate. Unfortunately the LLPG match with the Valuation Office Agency (VOA) Non-Domestic Rates (NDR) listing at the time was only 54%.

Salford therefore embarked upon a comprehensive exercise to improve its commercial property data. The project took three months and involved the LLPG team working closely with planning staff. All commercial addresses that could be identified as being incorrect were taken from the LLPG and a separate comparison was carried out with the VOA commercial address listing to identify other candidates for inclusion in the LLPG. The addresses were then loaded onto GIS enabled laptops, and planners, working in pairs, were sent into the field to check and accurately position the addresses. Notes were taken to help the LLPG team refine the address entries. All NDR cross-references were added to the address entries in the LLPG at this time. At the end of the exercise the match rate with Valuation Office Agency Non-Domestic Rates had significantly improved to 97%.

Outcomes

As a result of this work, the planning department's Employment Site Study went ahead as planned with much additional data being appended to LLPG records. Planners now have confidence in LLPG data and this has helped in its further adoption by other departments across the council. The effort now required to keep pace with change has been significantly reduced and the lessons learnt will help to inform new street naming and numbering processes.

Key benefits

- There is increased confidence in the LLPG with a number of users noticing the improved quality of commercial property coverage.
- Improved quality and profile will lead to the adoption of the LLPG as the central address database for other council systems such as Council Tax.
- Maintaining the LLPG and the match rate with NDR has become easier and quicker.

Gazetteer improvements lead to better online service access

London Borough of Hackney

NLPG Most Improved



Created in 2004, the London Borough of Hackney's LLPG has moved from strength to strength with the council submitting daily updates to the NLPG hub. Right from the start, the LLPG team were conscious that they needed to ensure a high match rate with the revenue system, Council Tax and NNDR.

From the beginning of the project the team were able to identify areas in the borough where properties were thought to be in an adjacent borough when in fact they were actually within Hackney. This meant that no taxes had been levied on these properties in the past. The LLPG is of a high standard and business process change is beginning to take place as a result. This includes transition to a new corporate document management system, which will be used by street naming and numbering, a mooted replacement of the gazetteer management system to facilitate further integration and linking with council systems.

A new web application, which allows citizens to search for a property and view a range of information about council services, makes particularly good use of the improved LLPG. The application has been a resounding success and popular with both internal and external customers. However Hackney realised that there was potential to do more; using the power of the LLPG to drive more web based transactions and become the entry point for the delivery of council services. The new 'Hackney Where' application is based upon a number of web services developed in house to facilitate further systems integration. 'Hackney Where' (www.map.hackney.gov.uk/hackneywhere/) unusually uses Google Maps, rather than licensed Ordnance Survey mapping, to present its information simply because the maps are considered easier to use and the street names easier to read due to not having to print OS copyright restrictions on the map. When the property is located, an information balloon appears containing the property UPRN, address, grid reference, street reference and Council Tax band.

Centred on the 'found' address, it is a simple matter to call up information about the Electoral Ward, Councillors, MP, Polling Station, whether the property is in a conservation area or is a listed building and it is possible to link to planning applications for that post code. It is also easy to find information about the Secondary and Primary schools, health facilities and practitioners; there are numerous links to external websites to provide further information related to the specific location. A 'Find My Nearest' feature is also available for quick distance based searches.

Using the built in facility with Google Maps, a user can click on one of the search results and a route will be drawn on the map from the starting property to the search destination. A list of routing instructions is also displayed.

Outcomes

The London Borough of Hackney has worked hard to improve the LLPG and is now focused on future integration projects that will leverage the power of its property based information. The LLPG has also enabled linking with other council held information to deliver a rich map based application, which is in daily use within the council and by the citizen at large providing much better access to services.

Key benefits

- The improved LLPG is facilitating further business process integration and data sharing.
- As a result of identifying new properties within the Borough, tax revenues have been raised.
- LLPG has enabled linking with many different sources of council held information, improving access both to customers within the authority and citizens within the Borough.

Investing to create a corporate infrastructure

Thurrock Council

NLPG Most Improved



At the beginning of 2006, Thurrock Council's LLPG and LSG had stagnated due to a lack of strategic vision. This all changed in July 2006 when a high level plan was put in place along with a significant financial investment to build a spatial information infrastructure – with the LLPG and the LSG at its heart. This would support Thurrock's key business activities, helping departments to communicate and share information with one another. Importantly the council created permanent staff positions in order to both create and maintain the databases and systems that underpinned the planned business transformation.

Thurrock recruited a new GIS team from scratch and appointed a full time LLPG and LSG custodian with previous experience gained with another council. Working with an external consultant to help create and drive the strategy, Thurrock was able to transform the quality of its LSG and LLPG and begin to submit regular updates to the NSG and NLPG hubs.

During this process over 70 new streets were added to the LSG; over 5000 duplicate records were removed from the LLPG and 3000 new ones created from change intelligence gleaned from street naming and numbering. At the same time 2000 street polygons and 70,000 BLPU polygons were captured. Fresh address matching exercises with Council Tax, NNDR and Electoral Roll 're-synchronised' the LLPG with these key systems.

Thurrock put new workflow procedures in place to ensure synchronisation between the LLPG, LSG and street naming and numbering. It upgraded its technical systems to facilitate this and enable the LLPG to be used as the central address dataset for Planning, Building Control, Environmental Health, Licensing and Local Land Charges. By August 2007, the Thurrock LLPG was considered fit for purpose and now underpins the council's new intranet map browser which went live in October 2007.

This business transformation was carried out within a year of funding becoming available. Effective project management has ensured the delivery of the project within a very tight timescale ensuring that the systems, people and skills are in place to enable Thurrock to realise its strategic aims, transform its business processes and improve its service delivery.

Outcomes

Thurrock now possesses a modern spatially enabled IT infrastructure and continues to improve its LLPG and LSG in line with best practice elsewhere. This has enabled a complete review of business processes, data sharing and improved inter departmental communications which will begin to deliver efficiencies as change plans are put in place. The council now make regular updates to both the LLPG and LSG hubs and can expect to benefit from these key datasets for many years to come.

Key benefits

- The hugely improved LLPG and LSG are now in place, trusted and used on a daily basis across the council.
- The improved gazetteers and new IT infrastructure have enabled business process reviews which will deliver efficiencies and improved service delivery.
- The council is now in a strong position to benefit from its strategic vision and investment.

A timely process

Fenland District Council

Best Practice for Street Naming and Numbering



Fenland District Council has transformed the delivery of council services resulting in a number of national accolades. The council's LLPG Team has taken charge of the council's Street Naming and Numbering function. This has guaranteed that new properties receive an address, that conforms to a national standard, within a matter of days and that the data is recorded within the gazetteer immediately.

Since the Street Naming and Numbering function became part of the LLPG Team, data is now instantly recorded within the gazetteer. Historically information could take several weeks to reach the LLPG and was often given to other service areas first. Once data is stored in the gazetteer, the Team then communicates this information throughout the authority resulting in increased operational efficiencies, improved customer satisfaction levels and reduced administrative burden. The information is also shared with other organisations, such as the emergency services and the postal service, securing real benefits for the residents of Fenland District.

Outcomes

The reinvention and reprocessing of the Street Naming and Numbering function of Fenland Council was introduced following the creation of the centralised address database (LLPG). Departmental data was consolidated to produce a 'master' address database and then cleaned to remove duplicate addresses and inaccurate records. The resulting database is successfully maintained and managed by the LLPG Team and is integrated with back office systems and front line service delivery areas resulting in reduced data administration, increased operational efficiencies and improved customer satisfaction.

Key benefits

- Address data begins its lifecycle in the correct place – the LLPG.
- The creation of a centralised LLPG, with integrated Street Naming and Numbering function, means all services are able to use one point of contact for all address queries, which provides accurate data.
- All new projects and customer facing initiatives will be using accurate data, where historically data may have been taken from a number of sources.
- Adopted published policy document governing the creation and maintenance of the address records ensure both internal and external users have access to the most accurate and up to date information.

All for one and one for all

Caradon District Council
Best Practice for Quality Process Improvement



Caradon District Council has created a unique map driven intranet application called 'Gazetteer' which brings together the council's disparate systems using cross references underpinned by the LLPG. What makes the system unique is that it has been designed from the outset to enable anyone using the system to report anomalies, such as address mismatches or missing properties, direct to the LLPG team or to the personnel responsible for validation to investigate and resolve. As a result the system has raised the profile of both the LLPG and map based systems, improved workflows and greatly accelerated address cleansing.

When accessing the council's intranet page, the user is presented with a number of controls, text boxes and a map. Users can search for a property by eastings and northings, part of an address or a UPRN. The map can also be used to pan and zoom to a particular point. Clicking on a property or a street will return the information held in the LLPG/LSG; including parish, ward, refuse collection details, garden waste collections, council tax information etc. A public facing web application is being planned.

At Caradon, gazetteer creation and maintenance is handled in a unique way encouraging everyone in the council to use and maintain it. A property lifecycle workflow underpins the process. A property starts life as a planning application in Development Control. Once building consent has been given, a UPRN is created and the workflow transfers to Building Control and then to Street Naming and Numbering. Using the workflow to build up property information in the gazetteer means that the LLPG custodian's role at Caradon is slightly different, policing a process as well as carrying out routine data cleansing and maintenance.

Once a property is built, it is accessible by 9 other systems that now use the LLPG as their source of addresses; including Development Control, Building Control, Council Tax, Non-domestic rates (for commercial property), Electoral Roll, Refuse Collection and Recycling and CRM. More systems will start to use the LLPG in due course.

Users of Caradon's system have the ability to report missing properties, incorrect locations, incorrect addresses, incorrect roads etc. For example if there is a missing property a user can click on the map where the property should be, enter the address and the system automatically emails the details plus a copy of the map to the appropriate LLPG team for further investigation. If a property does not have a cross reference to Council Tax or NNDR, the system will, at the user's request attempt to match it to an existing address, offering suggestions to the user. The user can then select the match, which is sent to the LLPG team or alternatively click on 'none of the above', which sends an email to the LLPG team to investigate further. This is achieved through tight integration between Gazetteer and the Council Tax/NNDR system.

Outcomes

Caradon has used and developed its existing GIS and IT infrastructure to facilitate widespread use of the LLPG throughout the authority. Improved workflows mean that properties get added to the LLPG at the earliest opportunity and that the complete property lifecycle is tracked. Making the 'Gazetteer' system accessible to all via an easy to use intranet system has raised the profile of the LLPG. Enabling users across all departments to participate in its ongoing maintenance has promoted the concept of shared ownership in this valuable council asset.

Key benefits

- The Gazetteer System is innovative. It utilises the power of multiple address-based systems and seamlessly links them together to provide a useful pot of property based information that can be used by any department or the public.
- Recognition of the importance of the LLPG across the council.
- Rigorous workflow, changes business processes and enables joined up government through seamless system-linking.
- Accelerated cleansing of address data as a result of cross-council involvement with a simple reporting mechanism.

Underpinning conservation

Surrey Heath Borough Council

Best Practice for use of Polygons



Surrey Heath has introduced an innovative new application to its public facing website called 'My Protected Trees'. The application allows a citizen to carry out an address-based search to check to see if any of the trees around their home are protected by a Tree Preservation Order (TPO) subject to a particular planning application, or situated in a conservation area. This application replaces manual processes, which used to entail checking several sources of council held data and onward communication of the results of the search.

A typical search reveals an aerial photograph of the property with the extent of the land parcel outlined in green and lists any existing TPOs or planning applications, which might affect trees on the property. These are hyperlinked to the Borough's online planning portal to reveal further detail. Users can also request a detailed PDF containing the search results, which is presented in the browser for optional download. Notification of each successful search is also sent to the Borough's Tree Preservation Officer so he is aware of the properties for which searches are being carried out. This software solution is completely automated and seamless to the user.

Surrey Heath has been able to do this because of the high quality of its data and in particular its LLPG. A major exercise in the mid 1990s was undertaken to produce accurate polygons for every property within the borough and this process has continued ever since. There are now over 40,000 Basic Land and Property Units (BLPU) polygons included in the LLPG each identified by a UPRN.

'My Protected Trees' provides members of the public, staff in the contact centre, the Tree Preservation Officer and other professionals such as tree surgeons and property developers with round the clock access to accurate tree protection information.

Used very much as a proof of concept, Surrey Heath has now embarked on a much larger project using the same technology in a much bigger application called 'My Surrey Heath' which provides citizens with an address centred search facility providing wide variety of service and facility related information such as refuse and recycling, planning, and education.

My Protected Trees is a completely automated application which requires no maintenance. It ticks a lot of boxes, saving time and providing more accurate information in the process. Now that the software and data infrastructure is in place and it works, Surrey Heath will be offering significantly more information via the web service related to precisely where people live.

Glossary

ASD – Associated Street Data

ASD is data additional to the basic Gazetteer data as defined in BS7666. The additional data is essential data relating to the requirements of the New Roads and Street Works Act 1991.

BLPU – Basic Land and Property Unit

An area of land, property or structure of fixed location having uniform occupation, ownership or function.

BS 7666

British Standard used in the compilation of all LLPGs and the NLPG.

CRM – Customer Relationship Manager

CRM is a broad term that covers concepts used by organisations to manage their relationships with customers, including the capture, storage and analysis of customer information.

GIS – Geographic Information System

A GIS is a system for capturing, storing, analyzing and managing data and associated attributes which are spatially referenced to the earth.

GMS – Gazetteer Management System

A GMS is designed to facilitate the hosting and maintenance of corporate BS7666 compliant Street and Land & Property Gazetteers.

LPI – Land and Property Identifier

A structure text entry that identifies a BLPU, i.e. an address.

LLPG – Land and Property Gazetteer

A LLPG forms a central or corporate address list that provides a unique and unambiguous identifier for each entry in a local authority's gazetteer. This central address list is made up from service areas responsible for the official street naming and numbering and revenue collection processes. Additional Address Change Intelligence (ACI) is also introduced from other local authority statutory functions such as building and development control, planning and land charges which affect the real world objects included in the gazetteer.

LSG – Local Street Gazetteer

Street Gazetteer created by the highways function within a Unitary or County Council for the purposes of identifying street works on highways.

my NLPG

my NLPG is a new option which allows those covered by the appropriate license to send candidate properties and general feedback to the NLPG Hub.

MSA – Mapping Service Agreement

The MSA provides for a comprehensive range of mapping and address data and support services for use in local authorities across Great Britain.

NNDR – National Non Domestic Rates (NNDR)

Business Rates (or National Non-Domestic Rates) are another form of local taxation. Together with Council Tax and central government grants they help to fund local services.

NLPG – National Land and Property Gazetteer

The NLPG is the first, definitive, national address list that provides unique identification of properties and conforms to the British Standard, BS 7666. It allows organisations across the public and private sector to link their data to the same high-quality source of references that define locations and addresses.

NSG – National Street Gazetteer

The NSG and Associated Street Data is designed to be an unambiguous referencing system that will identify any length of street in the UK. It conforms to the British standard, BS 7666 part 1. The system specifies a format for holding details on every property and street, and provides a complete list of all streets with their names and other useful information.

NLIS – National Land Information Service

NLIS provides a national, single point of contact to official land and property-related information in England and Wales. It is a secure, internet-based infrastructure, which allows search requests to be submitted and responded to, online.

NLPG advance

NLPG advance is an online facility to allow all local authority Street Naming & Numbering (SNN) Officers to view, update and distribute SNN data.

OWPA – Objects Without a Property Address

Addressable objects such as recreation grounds/open space, public convenience, church or car park that do not receive mail but need to be captured within a LLPG.

UPRN – Unique Property Reference Number

Each BLPU has a reference number or UPRN. Each UPRN is a maximum of twelve digits, is unique within the UK and has no internal structure related to the geographical location of the BLPU to which it relates. Maintenance of uniqueness is carried out by the central NLPG hub.

USRN – Unique Street Reference Number

Each street in the UK is allocated a seven or eight digit reference number from a pre-defined range of numbers for each local authority.

TPO – Tree Protection Order

Planning authorities have powers to protect trees by making Tree Preservation Orders. The issuing of a TPO makes it an offence to cut down, top, lop, uproot, wilfully damage or destroy any protected tree(s) without first having obtained permission from the Local Authority.

VOA – Valuation Office Agency

Organisation responsible for the compilation of national registers of rateable property.



To learn more about the NLPG or the NSG and how it can benefit your organisation, please contact:

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