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## Collaboration, co-operation or chaos? G-government in practice

Tom Moore, Senior GIS Analyst, Forth Valley GIS

### Abstract

Things are changing in Local Authorities. Increasingly, traditional organisational structures fit uneasily the new ideals of one-stop shops, single transparent points of information and the requirements of joined up government. The new information age in local government requires information exchange that transcends services and business areas and which is only now becoming possible with the convergence of government policy and technical enablers. Geography e.g. Addresses or a Property Reference Number often provides the common element in local authority data and provides a means to couple otherwise disparate information. Intranet GIS and database technologies provide the means to build corporate information systems that enable information to be shared widely through the local authority enterprise. However, building such systems requires cultural adjustments and a high level of skills. The three Councils of Clackmannanshire, Falkirk and Stirling in Central Scotland now under the co-ordination and guidance of Forth Valley GIS are now exchanging ideas, experience and skills in order to develop new corporate information strategies and systems based upon Intranet GIS to meet their own Modernising Government objectives and goals.

### Introduction

The following paper discusses organisational change that relates to the Corporate Property Initiative (CPI) that Forth Valley GIS has implemented in the Local Authorities of Clackmannanshire, Falkirk and Stirling in Scotland.

The central principle of the CPI is a simple one. Local authorities have a wealth of data that relates to properties and land; most of this data is central to the core business of Local Authorities. The CPI endeavours to integrate this data, for use within the council, by using GIS technologies. The latest incarnations of CPI applications are Intranet based and integrate data from multiple sources. GIS is used to disseminate, analyse and visualise the data and enable interaction with the data in methods specific to GIS such as spatial analysis techniques and graphical selection of data points from a map. Effectively joining up data sets so that they can be used together.

As is the case with all GIS projects the quality and effectiveness of the applications is entirely dependent upon data. However, Local Authorities have generally never thought or behaved corporately, with skills, data and resources focused in departments and services with little acknowledgement of the real business benefits of sharing data corporately. Examples of data sets that Councils hold that relate to property include Council Tax information, Estates (municipal buildings, leisure centres, day care centres, schools etc.) information, Council Housing, Title Deeds and Grounds Maintenance. However, within these broad categories various services and departments will hold different types of information about those properties. From a corporate information, and task-oriented perspective this devolved data structure is not cohesive. The data is not being used to its full potential. Hence, there is a requirement for organisational change to unlock the potential of this data. In Councils where departmentalisation typifies the organisational structures, are the goals of the CPI possible? Have we experienced co-operation, collaboration or chaos?

## Inception

First and foremost, the creation of the CPI as a data and functionally driven project has been the key to its success. Effectively the CPI is a data management project. In the initial stages of the projects it was vital to determine the scope of the situation by auditing all existing information systems and the data within them, and the purposes to which they are put. The results of all three audits demonstrated the enormity of the problem in terms of the distribution, the amount of related data and the different media within which it is stored.

Figure 1.1 : Audit Results for Clackmannanshire, Falkirk and Stirling.

	Clackmannanshire	Falkirk	Stirling
Total Systems	48	142 (112 Electronic, 30 Paper)	40
Systems that are critical to business needs or a statutory requirement	46	82 (54 Electronic, 28 Paper)	26
Systems Accessed by more than 15 people	6	34	27 (more than 25 people)
Systems Accessed by less than 15 people	42	128	13 (less than 25 people)
Systems using an Address as a unique identifier	38 (80% of all systems)	121 (88% of all systems)	33 (83% of all systems)
Systems using a unique Geographic identifier e.g. OSAPR	12	71	25
Systems using a National Grid Reference	12	23	12
Systems accessed by more than one service : % of data within systems that is of use to other services	N/A	4 : 83%	2 : 65%

These systems are on various platforms, Unix, Windows and DOS and in all 3 councils a multitude of database technologies form the back bone of these systems from Oracle to Access to SuperBase.

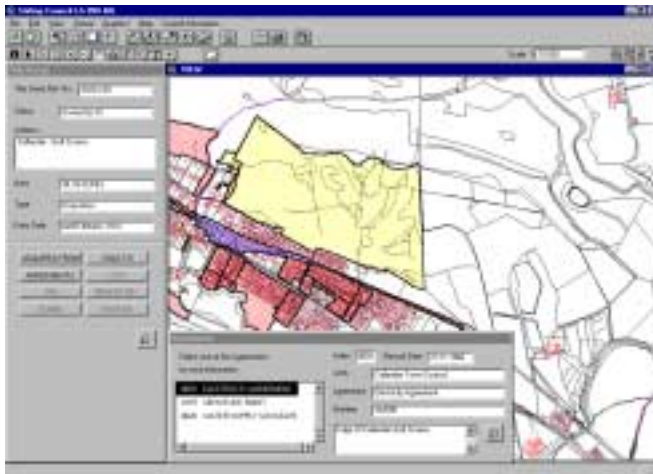
GI data capture projects, through digitising and address matching, were initiated at the earliest stage. This included the GI data sets of Council Properties (Schools, Council Offices etc.), Council Housing Stock and Title Deeds. Coming on-line are the geo-registered Local Land and Property Gazetteers (LLPG) which will further increase the breadth of data integration. Effectively, these data sets form the hooks to spatially enable the wealth of attribute data held by the Councils. Attribute data is joined to the spatial data using a common reference number or address. In each case a CPI steering group was then established in order to identify the data of greatest importance corporately, in addition to identifying and prioritising individual projects. The approach has been incremental with more and more data sets being brought on-line depending upon need, functional and information requirements. In Stirling, the most advanced of the three CPI's, the evolution of systems has progressed from desktop applications to Intranet solutions. (*Figure 1.2*). In Falkirk and Clackmannanshire the desktop stage will be bi-passed with development of Intranet applications only. Currently, in Stirling, 17 data sources can be accessed, through 23 desktop licenses and for certain data sets there is unlimited access through the Councils Intranet sites. But what are the key organisational issues that have made this possible?

## Co-operation and Collaboration

### Management Issues

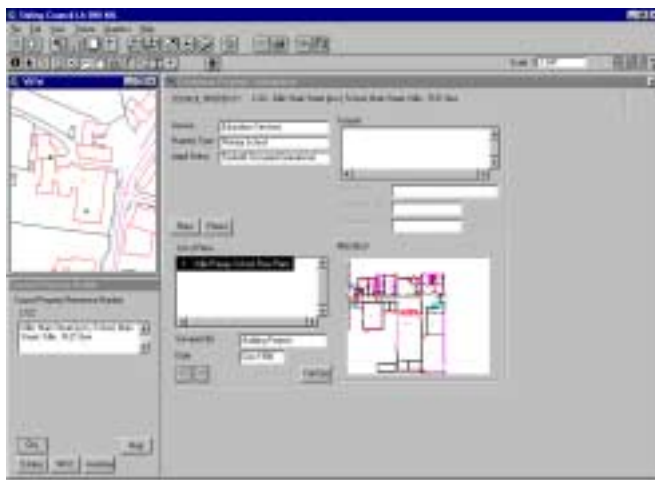
Creating a 3-year post for a CPI project manager/systems analyst was of key importance to achieving the aims of the CPI. Establishing the post necessitated the support of Senior Management, which in one of the Councils extends to the Chief Executive. However, this also required a degree of blind faith and foresight, as there would inevitably be a lag between the commitment and the benefits. This high level support, championing and recognition of the CPI was necessary to give weight to some of the changes that have occurred. Another key management issue is that the post is jointly and equally funded by all services. In this way there is not only a corporate financial commitment, but also corporate expectations. By having senior managers of all services, sit on a steering group, lines of communication between departments and services can be established in terms of common wants and requirements. This in turn highlights the corporate and related aspects of services' work. Furthermore, the involvement of Senior IT managers at each Council ensures that the CPI is aligned with the Councils corporate information strategy.

Figure 1.2 Current Desktop Applications



### Estates Land and Property Information System

Data from Lease Plan Database, Building Plans Database, Photographic Database, Title Deeds and Property Information.



### Facilities Management System

Data from Lease Plan Database, Building Plans Database, Photographic Database, Title Deeds and Property Information. Property Maintenance Data, Asset Register



### Housing Management System

Data from Lease Plan Database, Building Plans Database, Photographic Database (Council Properties and Council Houses), Title Deeds and Property Information. Property Maintenance Data, Asset Register, Sale of Local Authority Housing Plans (SOLAH), SOLAH Notes, Housing Management System, Capital Program Database, Stock Condition Database

However, although the strategic direction of the CPI is dictated by the steering group there are also advantages in not having the CPI post aligned with any one department or service. By freeing up the project manager/system analyst it is possible to look outside the typical service barriers and uncover the areas where corporate benefits can be gained through data sharing and that data's subsequent dissemination. Also, in terms of how the project manager/system analyst is perceived this independence is essential to facilitate non-biased communication links.

The strategic management of the project is very much top down. However, the practical management of the project is bottom up and driven by the users. For each sub-project, cross-service and cross-departmental teams are established to assist the project manager/system analyst throughout the project life cycle, insuring their input in to the project. From the Project Initiation Documentation through the User Requirements and Product Development to the final evaluation, roll out and continued data management this cross-service team is involved.

### Cultural Shifts and Capitalising Upon Hard Benefits

The central idea behind the CPI is that there are many data sources within the Councils that relate to Property and Land that are typically held in silos that would have greater use when used in combination with other property data sets. The reason for that is that within departments this data is required for their business processes. In line with departmental requirements the way in which data is collected varies dramatically. Some of these issues are central to the problems associated with the creation and management of the Local Land and Property Gazetteer (LLPG), which will be discussed later. However, the CPI is almost a parasitic entity that effectively uses the data that is of corporate use and leaves the rest.

In some cases obtaining the data is limited by technological barriers, i.e. non-open systems. In others it is simply a case of non-corporate data management practices. Thus, and central to some of the successes of the CPI, any changes in working practices have had to benefit the Councils corporately but, most importantly, benefit the individual departments involved. This has been achieved by implementing corporate data gathering strategies, enabled through tailored applications. This can be as simple as creating file structures and filenames for data such as plans, remediation reports or photographs relating to property that can be interrogated corporately. Implementing these processes requires changes in working practices, which is often met with scepticism and opposition. However, when users have access to data that was previously in a silo, through the CPI applications, they can see the value of that data alongside other attribute data and background mapping and can realise its power. These users are then more likely to submit their own data to the project and accept the new working practices. Moreover with effective delivery of the information, departments and services can realise the corporate benefits.

### Inter-Council Co-operation

Forth Valley GIS as a central GIS unit for the three councils has also benefited from inter-council co-operation in terms of insights into corporate working. The ideals and broad aims of the CPI are the same, but the organisational structures and cultures vary. Thus an approach that is successful within Stirling may not be appropriate for Falkirk or Clackmannanshire. Recognition of these differences between and within organisations is key to achieving success corporately. It is essential to be flexible and try new approaches if one clearly is not working, even if it did work within another Council.

For historic reasons the three CPI's are at different stages in their life cycles and as such expertise has been developed from different quarters.

- In Clackmannanshire, the LLPG was one of the first submitted voluntarily in Scotland. This expertise is now being shared with the other 2 CPI projects.
- Intranet development occurred initially in Stirling and that expertise will again be passed to the other two organisations, negating the possibility of duplication of effort.

This could only be achieved by maintaining co-operative relationships at the inter-council level, facilitated through regular meetings.

## National Initiatives

The aims of National initiatives such as the National Land and Property Gazetteer (NLPG) and Modernising Government Agenda are intertwined with those of the CPI. The National Land and Property Gazetteer when established, is an enabling tool for joined up government. Through the Unique Property Reference Number (UPRN) it is possible to link any data set that has adopted it as a unique identifier for records. You could effectively have a national CPI. However, the creation and maintenance of the NLPG also forces organisational change within Local Authorities. A corporate database is created that feeds data to any and all property based systems. This necessitates corporate data management; in order to keep all systems in-sync with the most current and accurate data. A working group exists in Stirling and working groups are planned for Clackmannanshire and Falkirk to tackle the issues surrounding the NLPG.

Modernising Government Agenda and the requirements of electronic service provision by 2005 requires joined up government. Obviously the CPI is involved with the joining up of information for internal uses. Thus, the Modernising Government Agenda has ultimately helped the CPI by focusing the Councils strategic aims, in so doing leading to the championing of certain projects. In addition the Modernising Government Agenda requires the application of Data Standards as a pre-requisite for accessing information held within many legacy systems.

Both National Initiatives have helped promote the CPI, and general change towards corporate practices. Furthermore, the CPI facilitates and delivers the promises of these National Initiatives. Hence to some extents the CPI has been a useful test case, but also a useable test case.

## Chaos

Although best efforts were and are being made to maximise the success of the project, there are times when Chaos prevails. This may be a result of cultural issues surrounding the context of working within a council, others issues are technological.

Inherently there is a lag between the theory of corporate working and the resultant applications and the practice. In the first year of each of the CPI's a lot of the work is research based. The solution, therefore, is to roll out quick winners and to give advice that will be of benefit corporately. This has included giving advice on local GIS data capture so that the information can be used corporately.

The project management can sometimes be hindered by the fact that the work and the post are not aligned to any one particular service. As such, the project is out with service work plans and therefore, co-ordinating stages of the project can be difficult. However, awareness of these difficulties is the best measure to counter them and plan for them.

It is also essential to learn, and understand the core businesses of each of the services and of the council as a whole to create products that are relevant corporately. This is very demanding on the CPI project manager who is required to develop an understanding of numerous business areas. As such the project manager/systems analyst requires a multitude of skills including, technical, project management and people skills as well as being politically aware. Furthermore, the project team must also have some understanding of how GIS can facilitate their requirements. To this end, communication must be open and the project manager must capitalise on the knowledge base within the team.

There are still reservations in terms of supplying data. Some of this is founded upon grounds of data protection. Data protection is not usually a barrier, but a useful guideline for socially conscious data use. A working statement on data use, issued by the data protection officer will prove particularly effective in providing clarity of data use. Other times it is due to the belief that the data is not of corporate use or the CPI is perceived as a threat to normal working practices and ultimately jobs. However, as mentioned before the CPI is only meant to enhance working practices and not replace them. Furthermore, the CPI promotes the base data by making it available corporately, raising awareness and heightening the need for the data and the staff to provide it, maintain it and interpret it.





- Utilising the skills and knowledge of the project team to highlight corporate benefits.

The success of the project has led to higher management support of new working practices that are more 'open' and in-line with the modernising government agenda. The issues are wider than GIS (extending to the National Initiatives mentioned earlier), however, the principles of integrated systems and corporate data collection has resulted in a more cohesive and coherent approach to service delivery and information management. The CPI would have not been a truly corporate initiative without the combination of the following 3 factors:

- **Technological Changes**            The advent of inter/intranet GIS.
- **Data Management**                Co-ordinated corporate data management.
- **CPI Strategy**                        A high level strategy with practical management from the bottom up.

The future of the CPI lies in maintaining this positive start and broadening the scope of integration. In line with the ideals of joined up government, investigations have begun to identify partner organisations and data sets that would benefit from the CPI, and also benefit the councils.

**Useful websites:**

[www.agi.org.uk](http://www.agi.org.uk)

[www.nlpg.org.uk](http://www.nlpg.org.uk)

[www.idea-infoage.gov.uk](http://www.idea-infoage.gov.uk)

[www.cabinet-office.gov.uk/moderngov/index.htm](http://www.cabinet-office.gov.uk/moderngov/index.htm)

Tom Moore  
Senior GIS Analyst  
Forth Valley GIS  
Viewforth  
Stirling, FK8 2ET

Tel :    01786 442977  
email:  mooret-fvgis@stirling.gov.uk