

Property Registration Authority

1Spatial has provided the Property Registration Authority (PRA) in Ireland with DMapS, a new digital land mapping system. DMapS is a state-of-the-art, web-based, digital mapping system for recording and accessing spatial information relating to Land Title in Ireland. The innovative system has already won accolades at both the Irish e-Government awards and the Association for Geographic Information awards for Innovation and Best Practice.

The PRA is an umbrella term for the Registry of Deeds System (founded 1707) and the Land Registration System (founded 1891), that deal with recording the notice and priority of deeds and recording and registering title to land, respectively. The core business of the organisation involves recording the legal impact of documents and related maps on the registers. Historically the PRA was heavily dependent on paper as all folio and map records were held together with the supporting indices in paper form. This naturally demanded a great deal of resource to manage, move and store these assets. Over 8 million pages of title records, 36,000 AO map sheets, more than 2 million paper indices and over 200,000 folios need to be available for inspection at any time.

The Challenge

One challenge that the PRA faced was an outdated and deteriorating paper map base that was increasingly impacting on the decision-making process. The paper-based system also meant that a single change had to be made several times to various data sources, slowing down the application and workflow process for the PRA's customers.

The PRA developed a Strategic Information Systems Plan that included the provision of an Electronic Register and the Digital Mapping Project (DMapS). The Integrated Title Registration Information System (ITRIS) was first developed so over 600 members of PRA staff could process casework, then the PRA ran a competition through the Official Journal of the European Community (OJEC) for the provision of the Digital Mapping System, which was won by a consortium headed by 1Spatial.

DMapS involved the placement of locator/seed-point identifiers for each of the registered land parcels on the underlying Ordnance Survey Ireland (OSi) digital map and the creation of a graphical link to the corresponding Land Registry folio.

The business objectives of the Digital Mapping project were to:

- Support the electronic storage and retrieval of mapping information
- Reduce the turnaround time of applications
- Provide online access to maps
- Assist with the electronic lodging of specific types of application
- Provide enhanced business continuity and disaster recovery capabilities
- Provide enhanced searching facilities including geographical and spatial-based searches
- Provide enhanced application tracking facilities on all lodged applications
- Enable the PRA to deliver its mandate under the national 'Information Society
- Action Plan/'Electronic Government' programme
- Provide more extensive management information through caseload reporting and ad hoc querying tools

- Support the PRA in meeting its requirements under the Irish Government's 'Strategic Management Initiative/Delivering Better Government' initiative.

The Solution

DMapS is a three-panel user-friendly interface divided into three areas showing dynamic data layers, the central mapping area and a task utility bar. The tasks are given varied levels of access to enable the organisation to determine which business processes are to be carried out by different/specialist users. Bookmarks can then be placed within the mapping area of the system to enable users to efficiently return to their own areas or responsibility.

DMapS provides a full audit history of Land Parcels providing a complete genealogy of each parcel, and also enables spatial querying of Land Registrations through a web interface for external conveyancers. Changes are made in real time and, once saved, are then instantly viewable by the rest of the organisation. The intelligent search facility allows users to break away from the indexes and grid references they were used to using on their paper maps to an electronic search facility.

Searches of the database can be performed either by typing in an address or by "zooming in" from an aerial map, allowing users to see Ordnance Survey Ireland (OSi) details, registered boundaries and photographs right down to street level, in much the same way as when using the popular online application Google Earth. The PRA has licensed the entire suite of orthophotographs, based on aerial photography of the entire country, from the OSi for this purpose.



The Results

The move to digital mapping has had a huge impact on the PRA. In recent years there has been an unprecedented increase in the volume of property transactions that they have processed. The number of legal transactions alone, completed per annum, grew from 98,479 in 1999 to 221,815 in 2006 – an increase of 123,336, more than 125%.

DMapS has also ensured that:

- Over 80% of the PRA's non-registration services are provided through **www.landdirect.ie**, the customer-facing portal for DMapS, entirely on a self-service basis and with no staff intervention or delays
- Virtually all applications are issued within 24 hours
- Number of subscribers now exceeds 12,500
- By the end of 2006 more than 2 million fee-paying transactions had been conducted online with a similar number of non fee-paying transactions also undertaken
- The PRA now offers Ireland's first national database of online land-related information

The benefits of the solution to the PRA's customers are numerous, and include:

- Improved timeliness and speed of service: conducting inspections of folios and filed plans is now instantaneous and copying services have become virtually automated. landdirect.ie has also contributed to a reduction in the time taken to process certain applications, especially where applications for registration are made electronically
- Improved convenience through extended hours of availability: the landdirect.ie service is available between 8 am and 8pm, Monday through Friday, whereas services through public offices are confined to between 10.30am and 4.30pm
- On-line data is far more usable and flexible than paper-based records: desktop delivery of Land Registry information has improved the support that the PRA's customers can, in turn, provide to their customers
- Improved service through Local Offices: for example, the Local Offices based in the Circuit Court offices in each county can now access information relating to the entire country rather than just their own county.

Benefits to the PRA itself include:

- A greater ability to cope with the expanding demands for services: due to the growth in applications in recent years, an online service delivery channel such as the landdirect.ie. has been essential
- An improved perception of the PRA to their customers
- More responsive customer relationship: delivery of online services has enabled the PRA to develop a closer understanding of customer expectations
- Providing the opportunity for the PRA to communicate its own requirements to customers: expected to lead to lower levels of error in the documents presented by customers
- The promotion of greater flexibility within the PRA, resulting in improved workflow processes and improved turnaround times for casework
- The promotion of further use of IT within the title registration process, a factor that will become particularly relevant in the lead up to eConveyancing
- The facilitation of PRA membership to the European Land and Information Service (EULIS)

The Future

For the PRA, the ongoing roll out of digital mapping is part of the Authority's programme to implement a world-class suite of information and communications systems. It is expected to support a new paradigm of service delivery and may bring about significant changes in how the PRA processes its casework and interacts with its customers.



*"Customers of **www.landdirect.ie** can now, from the convenience of their own offices, complete online map searches for the entire country. We believe that this is the first national database of land related information available online in Ireland ... It is also apparent that the availability of a wider range of services is attracting a broader range of customer to **www.landdirect.ie**.... The success of our electronic services is evidenced by the high level of usage and the growing number of subscribers ... With this significant achievement the organisation has further delivered on one of its major strategies of continuously improving customer services"*

Catherine Treacy, CEO, Property Registration Authority



Links to further information
<http://www.landdirect.ie>

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