Land Information New Zealand

Development of an Address Information Management System (AIMS)

BEST PRACTICE ADDRESSING

AND ADDRESS DATA

THE ISSUE

Address underpins many activities in our daily lives. It
helps provide a common understanding of where places,
and people, are. It is fundamental to emergency response and is also a key part of maintaining the
integrity of New Zealand's voting system. LINZ maintains the national record of all official road names
and addresses in New Zealand. They are provided to LINZ by local councils who allocate or change
property numbers and street names based on addressing standards and guidelines.

LINZ currently maintains addresses within Landonline which is primarily a land transfer system. The
address structures in Landonline predate the raised awareness of the importance of address as a
fundamental data layer and the current understanding of the complexity of address models and the
relationship to other property data. LINZ staff and external users such as the Electoral Commission, NZ
Post, emergency services and data resellers have needed workarounds and data supplements to make
the address data 'fit for purpose'.

THE SOLUTION

LINZ partnered with e-Spatial and Datacom to develop and deliver a new Address Information
Management System (AIMS) which will improve their address data management process. It will
support better management and integration of address data with other government agencies and
Territorial Authorities (TA's) and lead to improved processes and better data for those who rely on
accurate addressing. AIMS will provide LINZ with a standardised address data structure supported by
validation rules that will improve overall address quality data.

New Zealand's leading independent spatial consulting firm.

The AIMS project has been divided into three main areas:

Stage 1: Provide a new address model to support LINZ in the maintenance of best practice address data. Intended initially for use by the LINZ addressing team, this stage consists of the design and build of the AIMS database, data validation rules and the interfaces with the Landonline and LDS systems. AIMS will be based heavily on the ISO standard for Addressing.

Stage 2: Extend the database to allow TAs to connect directly to the AIMS system to improve the flow of addressing data. Currently TA's are required to submit address information to LINZ users who then input it into the database.

"For the first stage of the project we'll roll the new system out to our staff. The database will more accurately model address information, including the ability to hold more than one position for an address, manage sub-addresses, include localities, and hold addresses that are no longer current. As a result richer data will be available through our online LINZ Data Service." Bill Nelson, AIMS Business Lead, LINZ

Stage 3: Develop a web interface to provide the ability for other users of address data on a national scale to submit 'problem address' issues.

THE RESULT

The result of AIMS will be a centralised repository of authoritative, consistently structured addresses that will be freely available to all under the governments open data policy.

Key fundamental concepts of AIMS include the creation of unique identifiers to enable better integration in systems, the definition of an addressable object that can relate multiple address types and the incorporation of address history that will enable the tracking of the life cycle of an address as maintenance processes are actioned.

Allocated addressing is a collaborative system between central and local government. The government vision is to have shared services and consistency between organisations and systems resulting in greater efficiencies and data integrity. AIMS has the potential to impact on other national projects that are aiming to deliver better public services through direct online interaction with government agencies such as the development of a Property Data Management Framework (PDMF) which connects property data used by many disparate agencies.

e-Spatial are advising other organisations on how the AIMS and PDMF projects are developing and progressing so that other projects, developed in the interim, can link with these new systems in the future. Auckland Council's amalgamation of their eight council systems into one is an example of this.