



New Zealand Post

Postal Address Data Management—Adding Quality with ArcGIS Server

Problems

- Lack of ability to achieve maximum processing and delivery efficiencies
- Inconsistent address data
- Dependence on manual mail sorting

Goals

- Provide users with a Web-based tool that allows capture, maintenance, reporting, and management of address information.
- Improve consistency and quality of data.
- Create a centralized repository of postal addresses for route optimization, automated sorting, and direct marketing.
- Maximize processing and delivery efficiencies.

Results

- Staff members can now add, change, and map postal addresses easily and accurately.
- Customers continue to receive mail reliably and at a low cost.
- NZ Post saves up to 10 percent on the processing cost of a standard letter item.

"This ArcGIS Server-based solution has given New Zealand Post a reliable tool to maintain a consistent, measurable, and known level of quality."

Matt Lythe
Address Data Manager, New Zealand Post



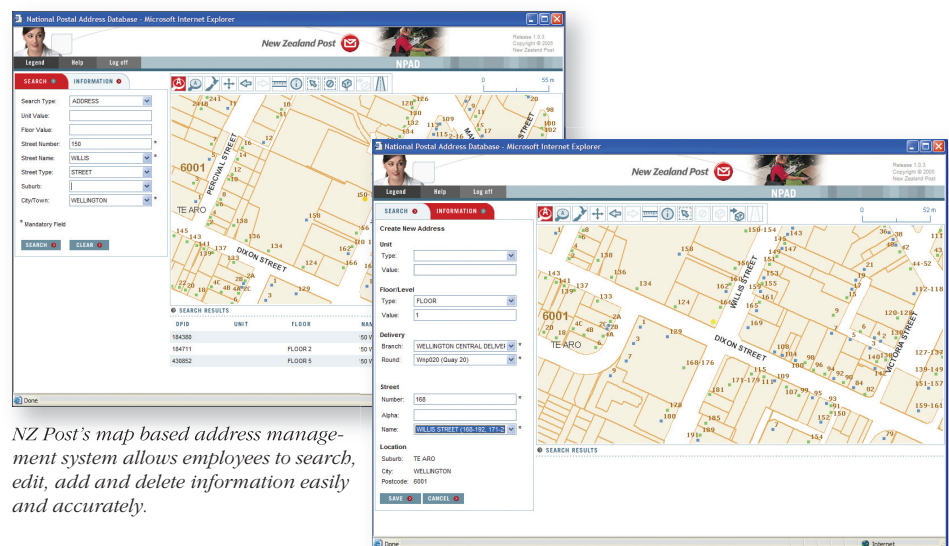
New Zealand Post (NZ Post) is internationally recognized as providing one of the most efficient and inexpensive postal services in the world. Every year, NZ Post delivers more than one billion items of mail to approximately two million delivery points in New Zealand.

While it continues the tradition of carrying and delivering letters and parcels through its postal services and international and express couriers, NZ Post has responded to customers' growing needs by expanding its business activities to include business and personal communications, physical goods distribution, banking and payments, and document and information management.

NZ Post is the largest employer in New Zealand. Approximately one in every one hundred workers is employed by NZ Post.

The Challenge

Like most postal authorities the world over, NZ Post has traditionally captured address data directly from a widely distributed delivery network applying only ad hoc quality management. As a result, NZ Post's ability to achieve maximum processing and delivery efficiencies and fully exploit commercial data opportunities has been impaired. The lack of quality and consistent address data, together with limited postcode usage, has meant that NZ Post remains heavily dependent on manual mail sorting to meet delivery targets.



NZ Post's map based address management system allows employees to search, edit, add and delete information easily and accurately.

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Postal Address Data Management—Adding Quality with ArcGIS Server

ESRI Software Used

ArcGIS Server

ArcSDE

Other Software Used

Oracle9i Locator

Microsoft .NET Client

Microsoft BizTalk EAI

The Solution

To meet this challenge, NZ Post established a program to scope, design, and build a robust data management system using spatial data and analysis tools to capture and maintain address data. Central to this was the development of a data model incorporating spatially defined reference datasets such as postal sort zone, postcode, and suburb/township. To capture and manage address data, an easy to use map-based application was developed by Eagle Technology integrating Oracle®9i™, ESRI® ArcSDE®, and ESRI ArcGIS® Server. Says Matt Lythe, address data manager, New Zealand Post, "ArcGIS Server has enabled us to develop an intuitive thin client map-based application for the capture and maintenance of postal address data for our entire network. Fully integrated within a complex environment, this architecture has proven to be robust and scalable while keeping address data definitive."

This solution was developed using the Microsoft® .NET framework. It was integrated with existing delivery systems using Microsoft BizTalk® Enterprise Application Integration (EAI). This facilitated business continuity through the change period by handling the communications and data replications necessary for the new system while it was being updated.

A key goal of the application was to introduce implicit quality improvement processes including spatial capture and the assigning of quality codes on all address data.

The system is now accessible during business hours on the NZ Post intranet. Employees can use the mouse-based application for searching, display, and reporting. The interface was designed to be easy to use and focuses on completing routine business processes quickly and accurately. To do this, the application allows NZ Post employees to use a map view of all address data. They are able to see the address in question and the surrounding environment such as street parcels, land parcels, and topography. Addresses can then be added, modified, or deleted, and reports that include the current map display and relevant details can be generated in PDF format.

For More Information



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Results

NZ Post has found that ArcGIS Server provides an architecture that allows scalability while keeping the core addressing information robust and definitive. The solution has given NZ Post a reliable tool to maintain the address database (a core asset) in a consistent, measurable, and known level of quality.

This approach to address data management is applicable to most postal authorities the world over. The ArcGIS Server-based application developed by Eagle Technology is portable and can be implemented successfully in these postal authorities as well as in any organization wanting to develop centralized addressing information with consistent high quality and reliability.

"NZ Post has invested in a future automated sort strategy that integrates a new address capture process, address data management, and more accurate machine sorting to deliver improved efficiencies and higher profit margins on letter processing for delivery," says Lythe. "We can save up to 10 percent on the processing cost of a standard letter item through machine sorting to the finest level."

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