

MidCoast Water: Realising ROI through Data Quality

MidCoast Water implemented 1Spatial's Radius Topology™ product to ensure both ongoing data quality and compliance with state government legislation, which requires utility organisations to be able to accurately pinpoint assets. With the support of 1Spatial's Australasian partner, Open Spatial, the organisation has now met this objective on time and on budget. Data quality has been improved which has led to improved decision making as well as significant time and cost savings.

Background

MidCoast Water serves an area of 7000 square kilometres of New South Wales in Australia. The authority is responsible for reticulated water supply and sewerage systems to communities in the Manning and Great Lakes regions. The delivery of services to such a vast area brings with it many challenges, which are met with innovative and practical thinking.

Formed just under 10 years ago from the water and sewerage sections of three local authorities, MidCoast Water has quickly grown to be an industry leader - and sees its encouragement of innovation as the key to this positioning.

The Challenge

MidCoast Water introduced a programme to cement its position as an industry leader and empower its employees by providing improved access to accurate geographical and asset information. The programme was developed in two stages: -

1. Improving the efficiency and accuracy with which information is gathered and recorded
2. Improving the accessibility of this information

MidCoast Water needed to ensure its data quality in order to provide the best possible service to its end customers. They needed to be confident in the reliability of their data at both the attribute and spatial level so that no manual checking was required and that time was not wasted searching for assets in the field due to errors within their data. Topological connectivity between networks also needed to be assured to prevent the duplication of editing tasks, which could provide a drain on their manpower.

As well as MidCoast's ongoing programme of internal improvement, from 1st July 2006 state government regulations required utility organisations to have the ability to accurately pinpoint their assets. MidCoast Water needed to ensure that they were fully compliant with this before the legislation came into force.

The Solution

MidCoast Water decided to implement the spatial data quality product Radius Topology from 1Spatial, after being impressed by a demonstration by 1Spatial's Australasian partner and reseller Open Spatial. They chose Radius Topology for two main reasons:

1. Significant time savings through its vertical topology editing capabilities (one edit is automatically duplicated across each vertical topology layer)
2. Improved data quality and spatial querying facilities allow for better decision-making for all phases of construction, thus offering the potential for increased data reuse, resulting in greater efficiencies and time savings.

The Radius Topology implementation was carried out by Open Spatial.

Radius Topology assures topological connectivity between MidCoast Water's networks, thus preventing the duplication of editing tasks and saving valuable time. The product also ensures the quality of data at both the attribute and spatial level so that no manual checking is required, and that time is not wasted searching for assets in the field due to errors within the data.



The Results

Following the implementation of Radius Topology, MidCoast Water achieved its objectives. The organisation now enjoys the following benefits:

- Interoperability – data is error-free and accessible via multiple applications across the company, meaning that everyone in the company has access to accurate data
- Enhanced productivity – significant time and cost savings have been achieved through increased query performance
- Enterprise-wide data management – business and spatial data has been centralised into a single database, reducing the duplication of effort for maintenance
- Improvements in data gathering – it now takes just a few hours to translate spatial data into maps, instead of 1 week
- Efficient processing of property information – MidCoast Water has experienced a 60% reduction in staff time for this task when combined with other processes
- Versatility of application – the return on investment has increased due to an ability to apply the data in a variety of new ways and through data mining opportunities

The return on investment for MidCoast Water has been substantial. Not only have they met their objectives to centralise business data and to accurately manage and pinpoint their assets, they have also achieved measurable time and cost savings.

As just one example: before the implementation of Radius Topology it appeared that two sewer stations were needed at a particular development. After the product had been used to improve the spatial data quality, it was clear that only one sewer station was required, saving MidCoast Water up to \$300,000 AUD.

The Future

MidCoast Water has now purchased Radius Studio™, 1Spatial's component-based data integration and quality management product, to validate, clean and merge data. MidCoast Water expects that this data verification tool will provide them with yet more cost savings and efficiency benefits.



Rules now verify MidCoast Water spatial data quality

“The major impact on our business is that it is now possible to provide quality, accurate spatial data for our staff to make decisions faster and with greater accuracy - we love it!”

Brendan Soustal, GIS Manager, MidCoast Water.



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