



Smart Analytics solution delivers results for Transpower

Transpower owns and maintains New Zealand's high voltage electricity transmission grid. They play a central role in New Zealand's electricity industry providing delivery of bulk electricity to towns, cities and major industries across New Zealand.



 *"The initial investment in the solution has already been paid-back several times over by extending the life of the current RTU Fleet" – in less than five months.*

RTU (Remote Terminal Units)

THE BUSINESS CHALLENGE

Central to the electricity transmission grid monitoring and operating, is the SCADA (Supervisory Control and Data Acquisition) communications network.

Transpower had increasingly large volumes of time-critical data that they needed to turn into concise and reliable information. This information is needed for rapid and effective decision making, for example to get a plant up and running quickly.

It was difficult to analyse SCADA network performance effectively and root-cause problem analysis was very time consuming. For proactive management, Transpower also needed to know what would happen to network performance when they made necessary configuration changes.

THE SOLUTION

A powerful Planning, Investigation and Management tool

Harmonic's goal was to help Transpower understand their critical performance drivers, and to mitigate risk through access to concise and reliable decision making information.

Using applied analytics and statistical modelling techniques, Harmonic developed an innovative software solution for Transpower. The solution helps Transpower to measure and optimise the SCADA network, manage risk and to predict future capacity needs.

The near real-time solution delivers at two levels, a technology platform and business impact views. It incorporates a dashboard, capacity analysis and planning tool, and a sophisticated predictive model. The predictive model enables network configuration changes to be tested to see what the impact would be, before implementation.

THE BENEFITS

The smart analytics solution helps Transpower to improve the operation of the national grid. Analysing and presenting data in a meaningful way gave Transpower greater insight to the demand drivers on their network.

Benefits include:

- Can enable faster response times to power system events
- Informed decision making – access to timely, reliable data
- Improved service performance (improved reliability and risk mitigation)
- Faster root cause problem analysis and the confidence to make changes
- Efficiency gains - more efficient resource allocation
- Can proactively manage additional demand and ease network load
- Assists with future investment options e.g. how to get more out of existing assets (RTU's).

Harmonic provides analytical expertise and decision support tools to help energy companies manage assets more effectively, improving power service quality as customer demand rises for the foreseeable future