



• Better mobile reception for Southlanders



Client: Venture Southland

Location: Southland, New Zealand

Completion Date: 2015

No one likes having unreliable cell phone reception, especially when it's in your own neighbourhood. Venture Southland were determined to understand why the network performance across the local road network in Southland is inconsistent, with the help of Opus.

Mobile network operators Vodafone and Spark provided Opus with GPS based data representing mobile signal strength at regular intervals across the road network. The challenge for our Geospatial team was to identify sections of road where one provider's signal strength can compensate for the other.

Our Geographic Information Systems (GIS) raster and vector analysis showed clearly visible performance gaps, overlaps and locations where one network can support the other and ultimately improve reliability for customers.

Using GIS to analyse mobile network signal performance from two network providers to identify where one is stronger than the other is unique. The method can now be repeated with more recently sampled data and can be used to analyse changes in mobile network performance over time.

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This was a first attempt at analysing the spatial relationship of the two mobile networks and further research will be needed to confirm whether the network performance patterns are static or vary over time.

Opus was engaged to conduct the analysis based on our local road network management track record and strong relationships within the telecommunication sector in Southland.

Services Provided: Geospatial

Tools Used: ArcGIS Platform

[opus.co.nz/projects/
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