



# POWERLINK

## ASSET INFORMATION HUB



### PROFILE

**COMPANY:** Powerlink

**WEBSITE:** <https://www.powerlink.com.au>

**DESCRIPTION:** Powerlink is a State Government Owned Corporation, which owns, develops, operates and maintains the high voltage electricity transmission network that extends 1700km from north of Cairns to the New South Wales border.

**INDUSTRY:** Power Utilities

**COUNTRY:** Australia

### PRODUCTS USED

- ERDAS APOLLO®
- GeoMedia® Smart Client







## EXECUTIVE SUMMARY

In the past, the use of geospatial data at Powerlink has been limited to simple web mapping and reporting for specific teams in various divisions. Previously, Powerlink's geospatial data and technical support needs were met by a specialist team embedded within Network Property.

With regulatory and shareholder-driven expectations for greater stakeholder engagement, as well as strong demand for operational efficiency to put downward pressure on electricity prices, there was growing need within Powerlink for broader access to – and timely use of – geospatial and technical data. Powerlink recognised that their technical asset and geospatial data could be better utilised across the business. Further, the combination of that data represents Powerlink's core intellectual property and a significant advantage in an increasingly competitive market – particularly as they assess and pursue non-regulated business opportunities.

One of the key outcomes of the Asset Information Hub (AIH) program must be delivery of products and services that are not only useful to and valued by the business, but contribute a quantifiable return on investment. To supply a broader suite of mapping and geospatial information services to more people across Powerlink, the Spatial Services team within Infrastructure Support Services in Infrastructure Delivery and Technical Services (ID&TS) needed to enhance capability and capacity without increasing headcount. In essence, the team needed to deliver more with less.

## THE CHALLENGE

The core challenge for the Spatial Services team was optimizing output in terms of quality and quantity to meet growing and changing business demand. Rather than highly iterative products delivered via labor-intensive processes, the team required a process overhaul to grow capacity, combined with enhanced technical capability, to be delivered through new toolsets. The overarching goal is to promote an enterprise focus on data with defined standards and build a data model that will optimize operational efficiencies and enhance data quality by:

- Fixing inconsistencies of naming conventions within the data models;
- Removing duplicated data; and
- Allowing for greater potential with integration of other applications across the business such as SAP, SPF and project Server with the possibly PQ Connect. This integration will potentially provide Powerlink with significant savings across the business.

## THE OPPORTUNITY

A three-pronged strategy was identified to provide Spatial Services with the agility to do more with less:

- Automation to deliver a suite of standardized mapping products quickly and efficiently
- Data analytics and modelling to facilitate better integration of different data sources for use in a wide range of spatial tools
- Spatial toolset selection and implementation to enable self-service and customization of mapping products, using high-quality data.

The business cases for these three streams of activity were all based around a singular premise of using existing data and tools in innovative ways to better exploit their capabilities. Their approval was granted on the implicit understanding implementation of these tools would further the ID&TS approach of 'think differently, act differently'; 'be empowered'; and 'seek business innovation'.

## DATA INTEGRITY MEANS COMPLIANCE & EFFICIENCY

Powerlink's geospatial products will only be as good as the data that goes into creating them. Historically, Powerlink has had little capability to document core metadata about corporate spatial data and it has been difficult to provide raster imagery efficiently to multiple applications. The AIH team researched a solution to optimize our current data through better management of licence agreements around its use, cataloguing and loading so it can be accessed via a range of software services. Hexagon Geospatial's ERDAS APOLLO was identified as easily implementable and capable of delivering Powerlink's data management requirements.

The use of ERDAS APOLLO will mitigate potential license breaches, and ensure spatial data is used in line with how it was derived. Applications such as Smart Client and ERDAS IMAGINE will be able to access the web services streamed from ERDAS APOLLO to access imagery easily and efficiently.

Other data and imagery services provided by NearMap and Digital Globe can also be easily consumed and fed to multiple spatial applications at Powerlink. The benefit is ready determination of the availability of appropriate datasets for the task specified. The result is faster, more efficient access to spatial data, without risk of license breaches.

## CREATING A CONSISTENT SPATIAL OFFERING THROUGH SMART CLIENT

Engineering software provider, Hexagon Geospatial was engaged to implement an enterprise geospatial information using Smart Client to ensure our geospatial data can meet Powerlink's ongoing and future requirements, as part of a suite of changes to streamline and improve our spatial services capability. Smart Client is a best-in-breed geospatial solution that will allow more people to Powerlink access to self-service using workflows built specifically to their needs, significantly cutting the time to delivery of customized mapping products.

Smart Client will help in maintaining accurate, quality and timely information services which in turn will enable more informed commercial decisions.

With Smart Client, individuals across Powerlink can create data, maps and reports for their projects. All products are standardized, and fit with the corporate policies and styles for clarity, consistency and professionalism. Previously employees outside the Spatial Team have been unable to create and print their own maps. With Smart Client a self-service function will be provided to these users, allowing them to access mapping and analysis at their desk, therefore reducing wait time and increasing efficiencies.

Figure 1 depicts where Smart Client 'fits' in relation to Powerlink's existing geospatial applications. The seven features (seen in bold) in the Smart Client circle that don't overlap with PQ Maps or Geo Media are the new features the company will have access to with the introduction of Smart Client. It is expected that the offline component will be implemented in 2016





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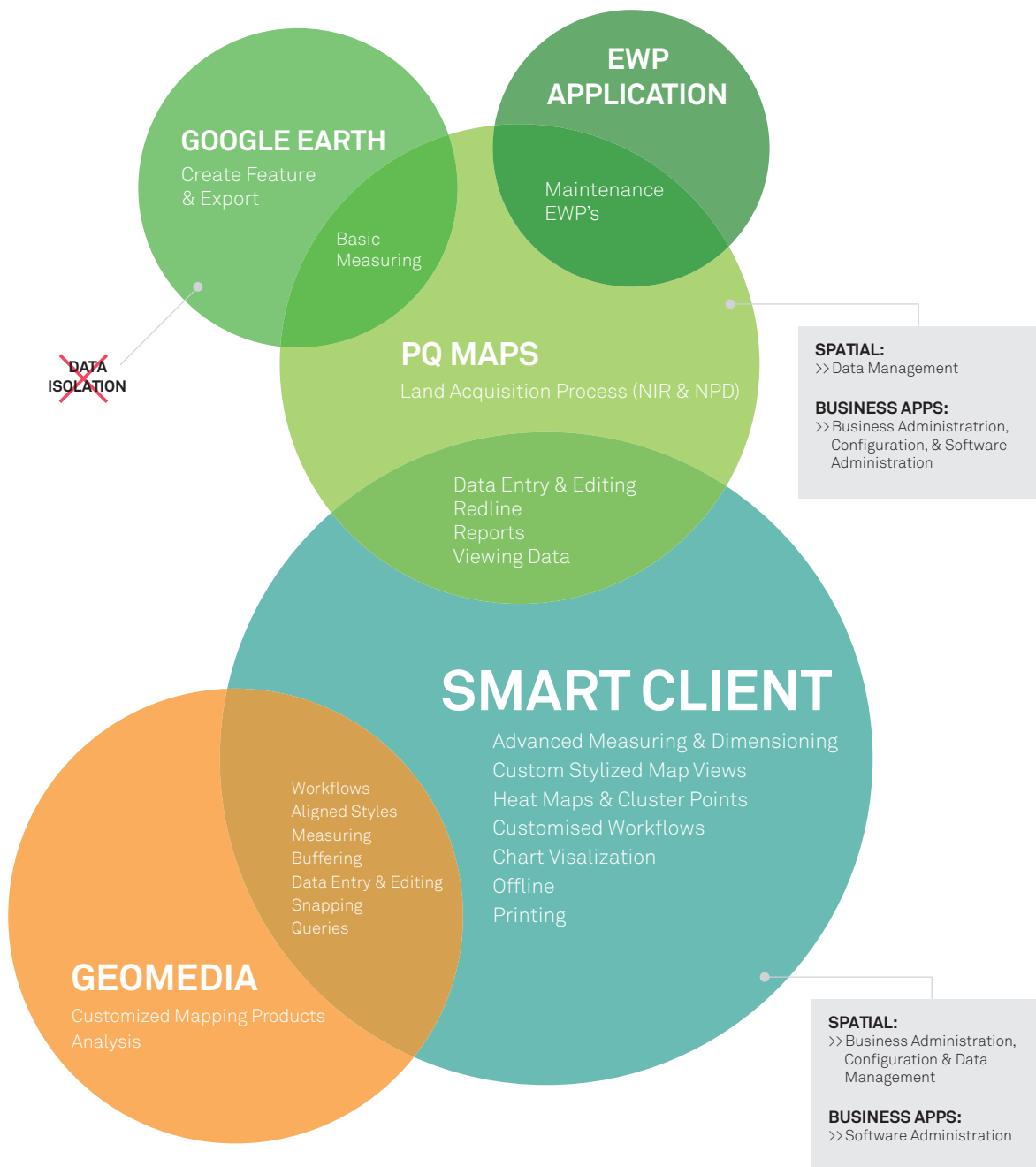


Figure 1. Geospatial Application: Smart Client

## POWER TO THE PEOPLE: SELF SERVICE SAVES TIME & MONEY

Smart Client will allow users of geotechnical information across our business the ability to customize and create maps and reports to meet their specific needs. It means individuals across Powerlink can create data, maps and reports for their projects, rather than having to rely on a GIS specialist or outsource this work. In the past, if employees were seeking spatial information beyond simply viewing data, generating simple reports and using the web map function they would need to contact the Spatial Team.

A manual, labor-intensive process would then be undertaken, where multiple revisions of the specific mapping request would often be required as the mapping need was defined. The self-service option provided by the system will allow the other areas of our business reliant on spatial information timelier access to and use of customized geospatial information in a manner.

Users across the business with more advanced mapping requirements will also have the ability to capture and edit data, use a range of cartographic features and tools as well as interrogate asset data to extract geospatial information.

Smart Client will change the way we work – for the better. The availability of this new technology and the investment in the professional development of our employees that will be required to leverage the system will make our day-to-day work more engaging, allowing us to broaden our skill sets and empowering us to do things differently. Efficiency gains made possible by Smart Client will make more mundane or tedious tasks quicker, so we can use our time more effectively on higher value work: including use of the new features never seen before at Powerlink made available with Smart Client.

## CONCLUSION

Smart Client is a huge step forward, not only for the Spatial Team and others with access to the front-end of the system but for our entire organisation. The features of this new toolset will result in significant productivity gains for the business. The new features available will transform the way we work; driving increased performance and delivery and allowing us to provide better services to our internal and external customers. Combined with tools such as FME and ERDAS APOLLO to manage our geospatial data integrity and quality, the rollout across the business will mean a higher standard of output and accuracy in the field as well as in the office. With the self-service capability (maps/reports/analytics), people are expected to be empowered and greater efficiencies reached resulting in sustainable outcomes for the future of our business.

A streamlined Spatial Services function supports our 2015 Powerlink Business Strategy by allowing us to make more knowledgeable, commercial business decisions due to the increased accuracy, quality and availability of our information services. Additionally, implementation and adoption of the system will require us to think and act differently, be empowered to 'have a go', and generate and support innovative ideas, behaviours that are integral to the sustainability of our business and are outlined in our 2015/16 ID&TS Divisional Business Plan.



Smart Client will change the way we work – for the better.”

## ABOUT POWER PORTFOLIO

The Power Portfolio from Hexagon Geospatial combines the best photogrammetry, remote sensing, GIS and cartography technologies available. Flowing seamlessly from the desktop to server-based solutions, these technologies specialize in data organization, automated geoprocessing, spatial data infrastructure, workflow optimization, web editing, and web mapping.



## ABOUT HEXAGON GEOSPATIAL

Hexagon Geospatial helps you make sense of the dynamically changing world. Known globally as a maker of leading-edge technology, we enable our customers to easily transform their data into actionable information, shortening the lifecycle from the moment of change to action. Hexagon Geospatial provides the software products and platforms to a large variety of customers through direct sales, channel partners, and Hexagon businesses. For more information, visit [hexagongeospatial.com](http://hexagongeospatial.com) or contact us at [marketing@hexagongeospatial.com](mailto:marketing@hexagongeospatial.com).

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