



First Australian airport to use enterprise-wide location intelligence

Westralia Airports Corporation

flying high with Esri Australia



Company Background

Strategically located in relation to South East Asia, Europe and Africa, Perth Airport is Australia's fourth largest airport in terms of passenger traffic. Perth Airport is operated by Westralia Airports Corporation Pty Ltd (WAC) under a 99 year lease arrangement with the Commonwealth Government. The airport estate encompasses more than 2,100 hectares and is the premier international, domestic and regional gateway to Western Australia.

// Outcomes

- All WAC staff have access to location intelligence tools, making teams more self-sufficient and proactive
- Design department focused on data integrity and design, rather than ad-hoc mapping enquiries
- Greater enterprise-wide understanding of location and its impact on the WAC business
- Improved airport's operation and sustainability, while minimising the likelihood of potential risks and mitigating their effect

// Challenge

Perth is Australia's most isolated capital city. Western Australia is home to a strong economy led by natural resources, with Perth Airport a critical infrastructure component in the state.

Perth Airport has experienced the highest passenger growth rates of any Australian capital city airport, reporting a 7.5 per cent increase in passenger numbers for the 2009/2010 financial year.

More than 10.4 million passengers travelled through Perth Airport in 2009/10 and total passenger movements per year are forecast to be 18.9 million by 2029.

To help meet this growth projection and also prepare for the expansion of terminal facilities, WAC sought to gather more data from across the airport estate, taking multiple safety and security, operational, environmental, customer service, commercial and service infrastructure factors into account.

WAC wanted to be able to integrate data from this range of complex interrelated areas of the airport estate and understand

how the location of various factors was influencing their use and constraints.

To achieve this, WAC required a location intelligence solution that provided more enhanced spatial information management.

// Solution

WAC partnered with Esri Australia to become the first Australian airport to introduce a corporate-wide location intelligence solution. The objective of GIS at WAC is summarised by the following:

"All geographically-related information is managed in a systematic way, is easily accessible to all staff utilising the system, and is used to improve the airport's operation and sustainability, while minimising the likelihood of potential risks and mitigating their effect."

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// Solution

The key goals of the solution were to:

- Provide a single authoritative source of spatial information
- Add value to the business and decision making processes
- Improve efficiencies in repetitive or complex tasks
- Provide an intuitive way to locate information held in business systems
- Ensure adequate and reliable technology is deployed to support location based systems and business activities.

WAC selected a location intelligence solution from Esri Australia that met its unique requirements, underpinned by Esri Geographic Information Systems (GIS) technology and Esri Australia's geographic web application server, Dekho.

Dekho enables WAC to integrate information from databases that have a location element, including property and asset management. Dekho allows WAC to effectively disseminate and manage this data across multiple departments, creating workforce efficiencies through time saving and near real-time information sharing.

WAC is a significant service provider, managing the power, gas, sewer, water, fuel, drainage and communications

needs of two terminals and more than 200 tenants. It is also effectively the landlord, retail hub and conservation authority within the Perth Airport estate.

The corporate-wide location intelligence solution that Esri Australia delivered enables staff across the entire organisation to access essential location related data to support the operation of the airport.

Shannon Browne, GIS Administrator at Perth Airport said, "before we implemented GIS, all spatial information requests were submitted to the Design Office (DO) to generate the relevant maps and data. This meant that departments did not have real-time access to information and the DO could become bogged down fulfilling the myriad of simple requests rather than utilising their skills for design and spatial information management.

"Through the implementation of Dekho we now provide all staff with GIS access through self-serve maps. These can help with anything from planning the location of a new vending machine through to scoping the environmental impacts of building a new warehouse on the estate. With so many stakeholders using location intelligence to get a greater insight into their working area, staff are better informed and therefore empowered to make better business decisions."

// Benefits

Beyond the ability to create maps and visualise where assets are, location intelligence is playing a major role in the planning and development of the expanding airport precinct.

Browne continued, "location intelligence is vital in planning the airport infrastructure for the construction or relocation of services and the maintenance of airport assets. Through effective use of location intelligence we will be able to move to a more proactive maintenance schedule and more efficiently allocate and plan resources, resulting in significant cost savings and a better running suite of assets."

"We are really happy with the benefits that we have already realised using location intelligence and we have only just begun to touch the tip of the iceberg of potential applications," said Browne.

// The Future

WAC has many more plans for using location intelligence at Perth Airport to optimise workflows and better understand the dynamic nature of the site. For example, further integration with the asset management and maintenance processes, detailed land use reporting, enhanced utilisation of location intelligence for operational activities and mobile access to GIS.