

## Case Study:

### Main Roads Western Australia: World Leaders in Infrastructure Asset Management

Today Main Roads Western Australia (MRWA) is one of the world's largest users of an integrated linear asset management system designed specifically to manage complex highway networks that cover expansive geographical areas. With its geography roughly equivalent to the size of Western Europe, it contains some of the planet's most isolated roads and extreme conditions with temperatures ranging from below 0 to in excess of 50 degrees centigrade.





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### Business Requirements

MRWA has over 17,500 kilometers of National and State roads to manage, valued in excess of \$16.3 billion dollars. MRWA also assists Local Government in the management of a further 130,000 kilometers of local roads. To be able to effectively manage a network of this size MRWA requires a corporate Road Information Management System robust enough to meet its specific and unique challenges.

During the mid 1990's MRWA faced a number of challenges in keeping abreast of advancing technology with its legacy systems based on mainframe technology coupled with resourcing issues relating to in-house developed software and management. The rising costs of using mainframe computing with its inability to quickly adapt to changing business objectives and the need to move to outsourced IT infrastructure and software support saw MRWA look for a technology partner who would know and understand its unique and diverse requirements.

As a direct result of these business drivers in 1999 MRWA went through an expression of interest tender process. Exor, part of a combined bid with Oracle and Fujitsu, was ultimately successful in the process and became the preferred tenderer. The bid was to provide MRWA with an 'off the shelf' solution that replaced a number of disparate existing systems but at the same time provided the capability of meeting existing and emerging business requirements such as the implementation of Statewide performance based Term Network (maintenance) Contracts. The system implemented by Exor is referred to as IRIS - Integrated Road Information System.

Steve Boston, Manager Asset & Network Information for MRWA, describes the business case put forward for the IRIS project as: "There were basically two main reasons for us to implement our IRIS system. Firstly, the increased costs associated with support and maintenance of a mainframe system had become prohibitive and restructuring of the organization to focus on 'core business' meant we could no longer retain the in-house ability to develop and maintain systems. Secondly, MRWA was

moving from being a hands-on road builder and maintainer to focus more on the management of the State's road network. Consequently, our road information management systems needed to focus on road management decision making, as opposed to the more traditional operational needs.

"Over the years we have invested millions of dollars in data collection via day-to-day operational activities or specific data collection programs. IRIS focuses on network, inventory, condition and road use data and we regard this as a key asset that is fundamental to all our performance and asset management processes. With the corporate system we've implemented we can now collect, maintain and access integrated data relating to our assets as part of normal day-to-day business. Some components of IRIS are also managed in partnership with our large Term Network Contractors who have direct access to the system."

As a direct result of the work undertaken and completed by Exor a strategic technology partnership has evolved where advances in software and new emerging business requirements are scoped, developed and delivered into the world's largest user of exor software as part of its core product.

Philip Caunter, General Manager Asia Pacific at Exor explains, "A feature of the Exor/MRWA partnership is that we are responsible for the technology which enables them to do their jobs more efficiently. It is our responsibility to maintain products, future proofing them against base software and compliance. With such a large-scale deployment it's a challenging task but demonstrates our technological ability and our work/customer relationship.

"Out of all of this, MRWA gets a standard and uniform system so they can concentrate on their core functionality. With over three hundred registered users on IRIS (Integrated Road Information System) the technology has to work."

The delivery program went through three stages. Initial licensing of Exor software modules such as Network Manager, Spatial Data Manager, Structures

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### The Delivery Program

Manager, Traffic Manager, Document Manager and Accidents Manager. Further developments of software upgrades, to version three releases, enhanced functionality and met exacting business requirements of MRWA. Additionally Exor provided extensive training and consultancy on the project.

Exor's software modules, such as Accidents Manager, are highly considered elements of the system. This module enables MRWA to effectively manage accident records relative to the underlying road network. With this referencing in place accident statistics can be analyzed against other road related data, such as road conditions to determine any causal factors. The calculation of important road usage measures such as AADT's (Annual Average Daily Traffic), is also made easy through the integration to Exor's Traffic Manager module. This then aids the future planning processes of the road infrastructure.

Steve Boston further adds, "After much hard work in implementing IRIS and developing business processes to support the system our initial vision of an integrated strategy is now a reality. We are looking forward to an on going working relationship with Exor to ensure the products continue to keep pace with our evolving business needs and that access and usability improvements continue to meet our expectations."

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### About Exor:

Exor Corporation was founded in 1995 and is a global provider of asset management software solutions for network centric infrastructure industries. Exor established its operating base in highways management and is rapidly expanding into other strategic markets including rail, water, power distribution and oil & gas. Based on world-class Oracle technology Exor provides clients with a modular approach to their individual technology needs. Exor Corporation operates worldwide in Europe, North America and Asia/Pacific. Exor systems manage 1,000,000 miles of roads with an asset value in excess of \$75 billion (USD).

[www.exorcorp.com](http://www.exorcorp.com)

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