

## »Client Introduction

- Macmahon Holdings Limited is a leading Australian construction and contract mining company that has been operating for more than 45 years. Headquartered in Perth, the company has offices in Sydney, Brisbane, Darwin, Adelaide, Kuala Lumpur, Hong Kong and Lagos.
- The Company's construction capabilities deliver complete construction services for road, rail, marine, water, and resource infrastructure.
- Macmahon has played a major role in the delivery of many of Australia's largest multi-disciplinary construction and mining projects..
- The diverse and comprehensive capabilities of Mcmahon incorporate a full range of transport, marine, water and resource infrastructure services, delivered for government and private sector clients.

## »Business Case

- Macmahon encountered problems in the earlier architecture of application as their business grew. So they planned to migrate the current version of the Message Broker product to the updated version in order to simplify the overall architecture.
- Also replacing the WBI Adapter with the DatabaseInput node for detecting events recorded in a database, and to retrieve the data affected by those events.
- With the new innovations in the organization, new application development on top of IBM WebSphere Message Broker was demanded.
- 24/7 support of the whole system became important to ensure timely resolution of issues when they occur.

## »Solution (IBM WebSphere MQ& WMB)

- Macmahon used WebSphere Message Broker V7.0 as that is easier to install and configure than previous versions because there are fewer product components and prerequisite products to handle
- WebSphere Message Broker V7.0 used to exploit the multi-instance queue manager capability that is delivered in WebSphere MQ V7.0.1, where WebSphere MQ provides failover support without the need for a separate High Availability coordinator.
- Performance improvements include response times and memory and storage usage. The footprint of the runtime component is reduced in terms of installation-time disk space and start-up memory size.
- The applications developed by Royal Cyber fully comply with industry standards of security and performance.

## »Benefits& Achievements

- Identical but separate Message Broker installations were performed for SIT, UAT, and Production environments.
- Database Input node was used to replace the WBI JDBC Adapter for detecting events recorded in a database and to retrieve the data effected by those events
- Overall Message broker architecture was migrated from Suse Linux Platform to Windows Platform
- High Availability & Failover environment was created for Production and Secondary Production environments to cater for performance, resilience and transparent recovery requirements in case of failure.