

Case Study

Queensland's Department of Emergency Services
Saving Time to Save Lives



Regular and up-to-date data is critical in responding to emergency situations.

David Zuill, Manager, Geographic Information for Public Safety

Challenge

Increasing the accuracy of its location data is essential to improving response time for emergencies.

Like many other organisations, DES was facing difficulties in storing, maintaining and managing their data as well as dispatching information that was timely and accurate.

The department required a corporate wide spatial information management infrastructure that was precise, user-friendly and could be easily integrated into the already existing spatial resources.

Solution

DES decided to integrate two separate technologies, MapInfo and Oracle 9i, to create an enterprise wide architecture that was innovative in disseminating quality and appropriate spatial information solutions to emergency departments throughout Queensland.

At Queensland's Department of Emergency Services one minute can mean the difference between life and death. The need for regular and up-to-date information is critical to the Department's success in responding promptly to emergency situations. The Geographic Information for Public Safety team at the Department of Emergency Services is charged with the responsibility of sourcing and providing vital information to various emergency departments and organisations throughout the state of Queensland.

The Situation

Queensland's Department of Emergency Services plays a vital role in saving and protecting lives. The Department provides services to cover all phases of emergency and disaster management including prevention, preparedness, response and recovery. The Department employs 7,100 full-time and part-time employees who are supported by more than 85,000 volunteers.

Queensland's Department of Emergency Services incorporates Queensland Fire and Rescue Services, Queensland's Ambulance Services, and Counter Disaster and Rescue Services. The central office provides strategic and business support to the operational services and volunteers as well as communication and coordination across all eight regional offices throughout Queensland.

To operate successfully, the department relies heavily on its ability to provide accurate spatial information to its communication centres to ascertain the location of its assets and where these assets must be deployed in an emergency or disaster. Spatial information is any piece of information that can be geographically referenced. It enables users of spatial data to achieve higher levels of information integration as well as perform more complex analyses than are feasible in manual environments.

The Geographic Information for Public Safety ' (GIPS) team at Queensland's Department of Emergency Services is specifically tasked with dispatching detailed spatial data to the department's communication centres. Spatial data, generated by this team, assists in the decision making process for communication centres as well as analysis and risk management by the Counter Disaster and Rescue Services and the Queensland Fire and Rescue Services.

Almost three years ago, the Department of Emergency Services realised that increasing the accuracy of its location data was essential to improving response time for emergencies. David Zuill, Manager, Geographic Information for Public Safety, Department of Emergency Services, Queensland said, "Like many other organisations, Queensland's Department of Emergency Services was facing difficulties in storing, maintaining and

Enterprise-wide Integration



"The seamless spatial data framework provided by MapInfo and Oracle changed the way we operate. We have revolutionised how we access and utilise spatial information by providing up to date and high quality information that assists in saving lives," Mr Zuill said.

"We deal with life and death situations everyday. The seamless integration of our desktop MapInfo products with a corporate relational database allows us to work a lot smarter by assisting us in streamlining our processes and ensuring we dispatch precise and accurate spatial data in a timely manner."

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The Solution

Mr Zuill and his team decided to integrate two separate technologies to create an enterprise wide architecture that was innovative in disseminating quality and appropriate spatial information solutions to emergency departments throughout Queensland.

MapInfo and Oracle 9i's enterprise applications were the foundation for managing core spatial information within the organisation. This integrated approach enabled the Department of Emergency Services to analyse, create, manage, maintain, store and dispatch spatial data in a single system. This resulted in reduced processing overhead and eliminated the complexity of coordinating and synchronising disparate sets of location data.

"Prior to implementing this solution, it used to take us several weeks to process data sets for computer aided dispatch systems, such as digital road networks and address information. With this new enterprise solution, what took us several weeks to process now only takes hours. We spend less time on reprocessing data and more time on creating value-add to our core data," explained Mr Zuill.

The Benefits

Through the integration of MapInfo and Oracle's spatial applications, the Department of Emergency Services is now able to better manage and analyse data,

allowing emergency departments to make more informed decisions.

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"For example, our team can develop and distribute spatial data which is used in providing expert advice and decision making support relating to disaster and emergency management, fire prevention as well as firefighting and rescue services.

Being able to incorporate spatial data from various external organisations into our dispatch data has seen a substantial improvement in the quality of our data sets. Additionally, the front-end application of MapInfo's desktop solution is incredibly user-friendly and secure - these are essential components when dealing with volunteers in emergency scenarios."

The implementation of MapInfo's enterprise solutions resulted in a robust architecture that was cost-effective, content rich, secure and scalable. Queensland's Department of Emergency Services is now able to deliver better quality information to its communication centres across Queensland.

This established architecture would now form the base for deploying spatial information through out the organisation using web-based technology.

"We deal with life and death situations everyday. The seamless integration of our desktop MapInfo products with a corporate relational database allows us to work a lot smarter by assisting us in streamlining our processes and ensuring we dispatch precise and accurate spatial data in a timely manner," concluded Mr Zuill.

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