

Case Study



Victoria's Metropolitan Fire Brigade Works with QAS to Improve its Emergency Response System and Data Accuracy

Background

Victoria's Metropolitan Fire Brigade (MFB) is responsible for emergency responses inside a district covering over one thousand square kilometres from Deer Park to Mentone and Somerton to Port Melbourne.

It is divided into four zones, each responsible for managing a number of fire stations, and employs 1,400 fire fighters out of a total of 1,700 employees. The remaining employees work in support and administration roles.

Community protection, education services and emergency responses are the MFB's main responsibilities. The MFB's headquarters are on the site of one of the service's first fire stations' in East Melbourne, which opened in 1893. The MFB operates 47 fire stations and specialist departments and also supports a Government-owned call centre that relays information on emergency situations to fire fighters in stations and out on the road.

The need to improve responsiveness and accuracy

In 2004, the MFB began to develop the new concept of 'informed turnout' and 'enhanced awareness' for its emergency station turnout system. At the core of this concept is the ability to verify a textual incident address in real-time and use the confirmed address to search and identify location, site and community related information. The additional information is designed to improve 'informedness' and 'awareness' for better preparation and protection of the responding crews and the community at risk.

The MFB determined that traditional GIS address verification techniques were not fast enough for emergency calls, and that it needed to find a way to verify addresses in a much shorter time frame. "In an emergency response, everything has got to be in sub-seconds," explains MFB's manager of application services, Dinh Ta.

MFB chooses QAS address management solution

According to Ta, the supplier of the MFB's GIS software, ESRI, suggested they try QAS software, and in 2004, the service started a pilot project. "Once the pilot was proved successful we went into full production," recalls Ta. The MFB went live with its QAS implementation in August last year.

Ta says the implementation went smoothly, and was achieved with the help of a "very capable" programmer from ESRI. According to Ta, the interface with MFB's systems was completed in only two weeks.

In the implementation, a 000 call is received in the state government's emergency service call centre. The information is then sent to the MFB's emergency turnout system as a block of text which contains the reported address of the incident.

The textual address is extracted and QAS software is used to verify it. Then two maps are printed. "One is a directional map of where a fire truck would be heading and the other map is a close-up map pin-pointing where the incident is," says Ta. The close-up map provides important information to the fire fighters and is very valuable.

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The confirmed address point is used to search the MFB's community knowledge database for additional information about the site the fire fighters are responding to. Information such as site inspection report, nearby chemical stores, hospitals and schools can be accessed and printed. "It means the fire fighter is very informed not just where the incident is but what may be associated with the incident," says Ta.

The other application the service is using QAS for is a Web interface that allows fire fighters' reports to be recorded after they come back from community safety activities. Addresses and contacts can be pinpointed and verified to build up a geo-coded community knowledge database. The accumulate knowledge is then extracted to assist emergency responses as described above.

The MFB chose Quick Address Pro, Quick Address Pro Web and Quick Address Batch from QAS. The suite of address management software applications is aimed at building more accurate, up-to-date dataibases, validating addresses inside the databases and enhancing effectiveness of emergency responses.

The software suite integrates quickly and easily with most established or custom-built address database programs to provide front-end and back-end address management for organisations.

Specifically, QuickAddress Pro verifies addresses during the process of data entry, using the most recent Australia Post Postal Address File (PAF). Users look up and search addresses using the software. It automatically enters the verified and standardised address into existing database applications in around 12-15 keystrokes.

QuickAddress Batch supplies corrections for address databases, cleansing existing databases and automatically correcting spelling mistakes and formatting errors. The address correction software is certified by Australia Post. Over time, frequent address checking helps prevent data decay by keeping the address database correct, accurate and up-to-date.

QAS' QuickAddress Pro Web enforces address validation on websites, intranets or any web-based application. Each address entered onto a website is verified for such tasks as billing, deliveries and customer profiling.

Response times and accuracy of data improve

Although the MFB says it is yet to establish the magnitude of the improvement that QAS software has brought to its operation, the impact of the project has been immediate. According to Ta, it has exceeded his expectations. "Without QAS, our entire response system would not have achieved the desired efficiency and effectiveness," he says, adding that it is now an essential part of the MFB's architecture.

Ta also notices that the accuracy and quality of the data improves constantly. "Its performance was really not a drag on our process at all," he notes. Because the QAS database is based on postal addresses, and not all properties have them, it was necessary to build a fall-back option into the system, and this was able to be accommodated. Now, if the MFB is unable to verify an address using QAS, the system falls back to the provided Melways grid.

The MFB is now looking forward to more databases coming from QAS that will enable more sophisticated community risk and safety profiling based on detailed community characteristics, allowing it to further improve services to the community in its jurisdiction. The MFB's level of satisfaction is further demonstrated by a future plan to expand its reliance on QAS software by issuing laptops on which the users can record information in the field and verify addresses on the move. At the moment, they can only verify addresses when they get back to base.

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