Rapid Response
Improving Communications between Traffic Management and Emergency Services

The Challenge:

Improving safety is an essential element of AZTech's mission. By extending the use of advanced communications technology and integrating individual traffic management systems, AZTech facilitates safety on the roadways. To improve the management of traffic incidents and accidents, AZTech has a goal of linking traffic management centers and emergency response teams. Through effective communications, these two vital services could work together to their mutual benefit when an emergency impacts a freeway or surface street.

Prior to AZTech, there was very little history of comprehensive coordination between traffic management and emergency services agencies. To improve and integrate the overall response to traffic incidents and accidents, AZTech endeavored to incorporate into its multi-agency initiative the various emergency services that use roadways throughout the Valley of the Sun.

The Solution:

Building its first partnership with an emergency response team helped AZTech establish credibility with emergency services agencies and set a precedent for linking traffic management and emergency services functions. Fortunately, a member of the AZTech team had an inside track. Chuck Manuel, the part-time incident management coordinator for AZTech, is also a firefighter for the City of Phoenix Fire Department.

According to Manuel, at the same time that AZTech was seeking an emergency services partner, the Phoenix Fire Department (PFD) was considering an upgrade in their emergency management system. This created a window of opportunity for establishing a partnership. "Chuck got us together with the Phoenix Fire Department and identified the right people for us to work with," said Marty Scott, AZTech system integration coordinator. "And in a very short time we were able to convince them that their participation in this project would be mutually beneficial."

Working together, AZTech and PFD designed a system that would allow them to share information in a timely and efficient manner. The assignment of creating that integrated system went to TRW, an AZTech private partner. The company was instrumental in the integration of diverse systems that is the essence of AZTech. "We developed the systems architecture and did the integration work that allows existing, stand-alone systems to share data and control," said Bill Daly, TRW project manager. "This allows for a dynamic interchange of information and video between jurisdictions across the Valley so everybody can use those resources."

Through AZTech, an upgrade was made to the PFD's front-end server, which is a computer located at its emergency management control center. This front-end server is now able to efficiently sort through all

emergency calls received by the department and extract relevant traffic-related incidents. The scope of these calls is broad, as PFD provides emergency dispatch services for 11 other municipalities. Extracted information includes any number of emergencies that impact roadway conditions and congestion, from traffic accidents to building fires adjacent to surface streets. "We're looking for emergencies that are on or very near roads or streets that will affect the traffic conditions," said Scott.

To relay the extracted information, a communications link was established between the Phoenix Fire department and ADOT's state-of-the-art Traffic Operations Center (TOC), which serves as AZTech's hub. From the TOC, the information is relayed to traffic management centers across the Valley that are part of the AZTech network. In addition, the public receives timely notification of emergencies impacting roadways through AZTech's multi-modal traveler information system.

As it established its link with PFD, AZTech had also been working with the Arizona Department of Public Safety (DPS) to implement a faster and more efficient method of traffic accident reconstruction and clearance.

The Benefits:

The partnership between AZTech and PFD delivers improved efficiency in managing roadways during emergency situations. Information provided by the fire department helps operators to make more-informed decisions when routing traffic. It also helps AZTech provide motorists with up-to-the-minute information on road closures related to accidents or incidents.

PFD's ability to provide a rapid response to emergency calls also is enhanced. Through its link to AZTech, the fire department is able to access a wide range of traffic information about roadway conditions and incidents to use in selecting optimum routes for emergency vehicles. PFD also gains the "Peer to Peer with Permissive Control" that is a unique feature of AZTech. This means that in emergency situations, the fire department has the ability to direct video cameras on the freeways and surface streets, turning them to provide views of any roadway conditions that may affect an emergency response.

While establishing multi-disciplinary inter-agency cooperation is a strength of AZTech, the majority of its experience in this regard is between individual transportation departments. The PFD project was the first attempt at establishing a link between a transportation agency and an emergency services agency. "This involved major cooperation between agencies," said Pierre Pretorius, AZTech program manager. "It was truly visionary for the Phoenix Fire Department to see the benefits of exchanging data." With PFD now onboard, AZTech is working to add the remaining fire and police departments to the team in order to fully integrate the Valley's emergency response and transportation management services.

As an international showcase for state-of-the-art Intelligent Transportation Systems, the AZTech Model Deployment Initiative has documented numerous success stories. To learn more, visit the AZTech home page on the Internet at *http:www.azfms.com*.