The Power of Integration
Fulfilling AZTech's Promise by Integrating Systems and Partners

The Challenge:

For a project the size and scope of AZTech, collaboration is essential. To fulfill its goal of developing an integrated intelligent transportation system for the Valley of the Sun and its more than 2.5 million residents, AZTech relies upon extensive partnerships encompassing both the public and private sectors.

"In a large metropolitan area like Phoenix, many agencies and entities are involved in traffic management, public safety, emergency management and transit," said Pierre Pretorius, AZTech program manager. "The challenge is to get the benefit of an integrated system so you do not have duplication and you have savings in terms of equipment, responses and information exchange."

To achieve full integration, AZTech worked to coordinate the efforts of multiple agencies from various jurisdictions. Within each agency there also exists different disciplines requiring intra-agency coordination. AZTech also featured participation by numerous private partners.

To achieve unprecedented levels of integration, AZTech would be required to do no less than set new standards for inter-agency and public/private cooperation.

The Solution:

"The foundation of AZTech is our overall integration and cooperation. We've developed very good relationships with our public and private partners, and we've received contributions and input from everybody," said Dan Powell, AZTech chief administrator. "I really think that we're a model for this type of integration."

The first step was to achieve institutional integration. This involved forming an effective coalition of more than 30 public and private partners. Through cooperation, communication and coordination, entities accustomed to functioning independently worked together as a team toward a common goal. The early years of AZTech were dedicated to laying a firm foundation for the project by building relationships and defining roles. Operating under the AZTech banner effectively erased jurisdictional boundaries and limits. By foregoing a traditional hierarchy and placing all partners on equal levels, AZTech cultivated collaboration and demonstrated that the best interests of all partners were being impartially promoted.

"The key is to have the institutional integration first and then move on to the technological integration," said Pretorius. The foundation of AZTech's technological integration is a cooperative system called "Peer to Peer with Permissive Control." Through this system, the operational hierarchy is eliminated by placing all partners on the same level of authority. Any agency can give any other agency permission to share in their information or control their operation.

"I think AZTech is probably the best example of cooperation on transportation matters we've seen in the Valley. All the cities that have been participating in this have been very supportive of the overall effort and each other," said Steve Hogan, transportation general manager for the City of Scottsdale. "That speaks very highly of what AZTech has accomplished and it spells the approach we should be taking from this point forward."

The Benefits:

Through the power of integration, AZTech established a telecommunications infrastructure that will serve the traveling public for many years. Public/private partnerships have also created one of the world's most extensive networks of traveler information. As a result, regional traffic management has been substantially strengthened and the traveling public is significantly better informed. "When it's all said and done, we would hope everybody would have a lot more information about how to most efficiently and safely make their trip then they have today," said Hogan. "That's the biggest benefit."

The operational centers of 13 different agencies were successfully integrated by private partner TRW, linking operations of the state of Arizona, Maricopa County, nine municipalities, transit and emergency services to AZTech's telecommunications backbone. This integrated network is completely interconnected and can exchange traffic data as well as video to the benefit of all partners. And integrating diverse systems reduces redundancy and stretches tax dollars. "Everybody is exchanging and sharing information, and therefore, we're making better use of the facilities that we have," said Powell. "I think we're developing a real synergy and trying to manage traffic for the public benefit, in the areas of air quality, safety and time savings."

In addition, the system of "Peer to Peer with Permissive Control" has encouraged a free exchange of information and fostered a broader perspective. "The attitude now is that everybody is trying to develop this system for the benefit of the whole region," said Powell. "It's a more regional outlook."

Incorporating the private sector into AZTech helps ensure its perpetuation, as private partners have a financial interest in the project's long-term success. "From the public agency perspective, I think we'd like to look at this as a vehicle for us to continue to talk to each other on a regional level and hopefully be able to provide better levels of service for our individual communities within our own transportation systems," said Hogan.

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*.