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CITY OF PHOENIX, AZ  
SUCCESSFUL  
ATMS / NTCIP  
CENTER TO FIELD INTEGRATION

NTCIP is a family of communications standards for transmitting primarily data and messages between microcomputer control devices used in Intelligent Transportation Systems (ITS). NTCIP is being promoted and developed by the Federal Highway Administration (FHWA), the American Association of State and Highway Transportation Officials (AASHTO), the Institute of Transportation Engineers (ITE), and the National Electrical Manufacturers Association (NEMA) to allow interchangeability and interoperability between various traffic management devices.

The City of Phoenix, AZ is announcing the successful integration of their Advanced Traffic Management Systems (ATMS) with Peek Corporation's TS-2 controllers.

Phoenix uses a TransCore, Inc. (TransCore) Series 2000 traffic signal management system (Series 2000) as the foundation for its ATMS.

Peek joins Econolite Control Products, Inc. in achieving successful integration with the Phoenix ATMS using the National Transportation ITS Protocol (NTCIP). The Econolite integration was a joint project with the City of Lakewood, CO.

Phoenix's ATMS / NTCIP is a fully operational system using a communications protocol that supports both low-speed and high-speed communications. This feature gives public agencies the flexibility to use existing low-speed phone lines in order to reduce costs or to use high-speed communications if available.

While several other Cities have implemented a form of NTCIP solution, only Phoenix has implemented a multi-vendor system. This system adheres to the NTCIP specification for all exchanges using the Simple Transportation Management Protocol (STMP), Simple Network Management Protocol (SNMP), and custom MIBS for low speed circuits.

This success was the result of a unique cooperative public and private partnership between Phoenix, TransCore, Econolite, and Peek. This effort started in mid 1996 and was completed in December of 2002.

Over the last six years Phoenix has worked with Econolite, TransCore, and Peek to develop, test, and complete the NTCIP center to field integration using low speed communications (1,200bps, half-duplex, leased telephone line) and high speed communications (9,600bps, full-duplex over fiber optic cable).

Making this an important achievement is the fact that the NTCIP standards were still in development when Phoenix began the Econolite and Peek projects. Much of what was accomplished on these first projects will be used to further define NTCIP for other deployments.

The major benefit of using NTCIP with low speed communications media is:

- Reduced communications costs by using a basic two-wire leased telephone circuit.

The beneficial results of using NTCIP in the future when the development is completed are:

- Use one communications network for all ITS devices (e.g. traffic signal controllers, variable message signs)
- Provide for a wide choice of NTCIP compliant equipment vendors

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