Orlando-Orange County Expressway Authority
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WHO WE ARE

The Orlando-Orange County Expressway Authority (OOCEA) was created in 1963 by the state of Florida to plan, build, maintain, and operate a network of limited-access tolled expressways in the Orlando Metropolitan area. This network currently consists of four expressways totaling 93 centerline miles of roadway. The Authority's business is funded completely from the collection of tolls from its customers.

The mission of OOCEA is to implement an expressway system that will improve the mobility and quality of life in Central Florida and provide access to major economic centers consistent with the growth management and environmental objectives and to accomplish this mission in a manner which is financially sound and cooperative with other modes of transportation and governmental jurisdictions.

INTELLIGENT TRANSPORTATION SYSTEMS

One of the ways OOCEA seeks to improve the level of service to its customers is through the implementation of Intelligent Transportation Systems (ITS) initiatives:

Fiber Optic Network

OOCEA has deployed a sophisticated fiber optic network (FON) to connect all toll plazas and customer service centers with OOCEA headquarters. Using a fully-redundant SONET-based architecture, the fiber optic network carries video, data, and voice communications. The FON was designed to accommodate future growth requirements through the installation of spare conduit and single-mode fiber optic cable to telecommunications industry standards. This additional capacity will allow the Authority's communication system to keep pace with future growth, allow the Authority to look for leasing opportunities, as well as share resources with partner transportation agencies to achieve regional objectives.

E-PASS

In 1994, OOCEA launched E-PASS, a transponder-based electronic toll collection system. The E-PASS system has provided significant benefits to the Authority and its customers by reducing travel delays at toll plazas and simplifying the toll transaction process. While a typical manual cash lane at a mainline toll plaza processes about 500 vehicles per hour, dedicated E-PASS lanes have processed more than 1900 vehicles per hour. In July of 2000, OOCEA opened its first toll plaza equipped with E-PASS Express Lanes, allowing E-PASS customers to pay tolls at highway speeds. Conversion of existing mainline toll plazas to the Express Lane configuration is currently underway.

As of November 14, 2004, OOCEA has issued 442,703 transponders and 277,439 accounts in Central Florida. E-PASS is fully compatible with approximately 1.5 million SunPass Electronic Toll Collection System transponders deployed statewide by the Florida Department of Transportation (FDOT).

CCTV Cameras

OOCEA is in the process of deploying a closed-circuit television (CCTV) camera system for incident management purposes. The first camera project, completed in September 2004, included 49 cameras to give us complete coverage of critical corridors, as well as provide two cameras at each mainline toll plaza. A second camera project scheduled to be complete by November 2005 will add 50 more cameras to expand coverage across the entire Expressway system. The final major camera project will add approximately 48 cameras to complete coverage of the Expressway system. The cameras will be viewable at key Authority facilities and the Regional Traffic Management Center (RTMC) where FDOT will provide facilities and resources for monitoring the video. From the RTMC, OOCEA video will be made available to the news media for daily traffic reporting.

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Data Server and Data Collection Sensors

The heart of the Expressway Authority's Incident Management System is its Data Server. The Data Server collects anonymous transponder information using a network of over 100 data collection sensors deployed at interchanges, jurisdictional boundaries, dynamic message signs (DMS), and other strategic locations across the Expressway Authority network. The Data Server converts this information into average travel times and speeds between key destinations and interchanges and transmits this information to the public using a variety of methods. Rather than starting from scratch, the Authority has executed a license agreement for the TxDOT TransGuide software as well as the TxDOT Center-2-Center system. Using a two-phase design and implementation process, the TxDOT software will be customized to meet the Authority's needs. The Data Server implementation is scheduled to be complete in April 2004.

Dynamic Message Signs (DMS)

OOCEA is poised to begin design and deployment of a network of dynamic message signs (DMS) across the Expressway system. These signs will primarily be used to post real-time travel information on roadway conditions to OOCEA customers. Operators from the FDOT RTMC and OOCEA headquarters will be able to post advisory messages alerting motorists to major accidents, hurricane evacuation information, and other incidents. The signs will also be used to post special event information, such as advisories regarding sporting events at the Citrus Bowl, and homeland security concerns at the Orlando International Airport. Finally, the DMS system will allow OOCEA to participate with law enforcement in the issuing of AMBER alerts.

Traveler Information Systems

OOCEA will participate in an automated traveler information system that will collect and transmit real-time traffic conditions to OOCEA customers. Customers on the roads will be able to view travel time information directly from the DMS network. Customers at work or at home will be able to view a speed map of current Expressway conditions over the Internet. Finally, OOCEA plans to integrate its data feeds into the regional 511 system, allowing customers to learn about current traffic conditions over a voice-activated telephone system.

THE DELIVERY SIDE OF ITS

Florida Highway Patrol

In October of 2000, OOCEA executed an agreement with the Florida Highway Patrol (FHP) for a dedicated patrol squad for the OOCEA system. This 8-member squad consists of 7 troopers and one sergeant operating 16 hours per day, 7 days per week. This dedicated law enforcement presence has resulted in quicker response times to accidents, improved traffic flow, a safer Expressway system due to speed enforcement, and reductions in the toll violation rate. A contract was also executed with FHP in June 2004 for a "hire-back" service for an additional trooper along S.R. 408 where extensive roadway widening is underway. This additional trooper will assist with lane closures and incident management in and around work zones and perform routine patrols along the length of SR 408.

Road Ranger Program

In September of 2001, OOCEA began offering the Road Ranger motorist assistance service via a contract with Martin Petroleum Corporation. Road Rangers are often the first responders to vehicle incidents and work in close coordination with OOCEA operations staff and the Florida Highway Patrol. They also provide free assistance to motorists stranded due to flat tires, overheating, and running out of gas. Road Ranger trucks are equipped with a portable dynamic message sign to provide emergency maintenance of traffic. Road Ranger service is operated jointly between OOCEA and Florida's Turnpike Enterprise to cover 125 miles of expressways in the Orlando metropolitan area.