

Technical Memorandum No. 3.2

Florida's 2003 Intelligent Transportation System Strategic Plan Update

Regional Operating Organizations

February 1, 2005
Version 3



Prepared for:

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 Florida's 2003 ITS Strategic Plan Update – Regional Operating Organizations*

DOCUMENT CONTROL PANEL		
File Name:	<i>Technical Memorandum No. 3.2 – Florida's 2003 ITS Strategic Plan Update – Regional Operating Organizations</i>	
File Location:	W:\ITS Program\ITS GC\TWO25-StrategicPlanUpdate\TM3 - Issue Papers\TM3-2 - ROOS\050201 TWO25 TM3-2 ROOs V3.pdf	
Deliverable Number:		
Version Number:	3	
	Name	Date
Created By:	Joe Schuerger	February 4, 2004
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	Pamela L. Hoke	May 11, 2004
	Pamela L. Hoke	June 2, 2004
	Dave Hodges, PBS&J	November 17, 2004
	Pamela L. Hoke, PBS&J	February 1, 2005
Completed By:	Pamela L. Hoke, PBS&J	February 1, 2005

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List of Acronyms

CMB.....	Change Management Board
FDOT	Florida Department of Transportation
FHP	Florida Highway Patrol
FHWA.....	Federal Highway Administration
FIHS.....	Florida Intrastate Highway System
ITS.....	Intelligent Transportation System
MDX	Miami-Dade Expressway Authority
MOU	Memorandum of Understanding
MPO.....	Metropolitan Planning Organization
OOCEA.....	Orlando-Orange County Expressway Authority
ROO	Regional Operating Organization
UCF.....	University of Central Florida

1. Introduction

The effective operation of transportation systems requires functional, organizational, and interjurisdictional coordination, cooperation, integration, and interoperability. Because most of today's transportation challenges are largely regional in nature, solutions to many of the critical transportation issues, such as incident and event management, traveler information, evacuation management, and coordinated responses, lie in the creation of a partnership among the operating agencies to address these regional concerns.

This type of operational partnership, sometimes referred to as a regional operating organization (ROO), has been created in many parts of the country, including Florida. Regional operating organizations provide a regional, institutional, and organizational framework for the management and operation of intelligent transportation systems (ITS). Besides offering a framework for addressing transportation challenges, ROOs provide a mechanism to facilitate interagency cooperation through coordinated solutions that involve many players, and typically cut across multiple agencies and jurisdictional boundaries. Typically, there are several common factors that drive the establishment of ROOs:

- Recognition of a critical regional need
- Meeting the need only through interagency cooperation
- Visionary and influential leadership
- Availability of funding.

Florida's metropolitan planning organizations (MPOs) were originally expected to play a major role in ITS deployments because of their traditional role and experience in bringing various jurisdictions together for planning purposes. In early 2000, it became evident that the focus of many MPOs did not include transportation operations. As a result, informal organizations began to take shape and these later evolved into ROOs. Florida Department of Transportation (FDOT) Districts, Florida's Turnpike Enterprise, expressway authorities, and various local governments have joined forces to implement successful ROOs, which will be discussed later in this *Technical Memorandum*.

2. Benefits of Regional Operating Organizations

Key benefits of ROOs include:

- Bringing together transportation, public safety, and emergency management operators to provide more effective management of incidents, disasters, and emergency evacuations
- Establishing new sources for transportation funding, and for the regional control of major roadway and transit assets
- Reducing construction- and incident-related delays through multiagency coordination and real-time information dissemination
- Enabling agencies to share transportation data and software resources through an integrated information backbone
- Enabling public agencies and private partners to combine resources to provide quality public and personalized transportation information services
- Improving transit services by implementing a common smart card fare collection system across transit operators¹

These benefits directly support both national and Florida integration goals by providing:

- Improved traffic flow
- Enhanced route planning for travelers
- Improved emergency response and security for transit
- Cost savings, improved productivity, and better customer service for transit
- Improved incident response

These integration goals result in the requirement that the various response agencies achieve timely coordination so that only those resources most appropriate for a particular incident are properly notified to respond. This requirement can be met by utilizing the ROO process to ensure timely coordination among the ROOs.

The ROO can also become the focal point for addressing the integration and interoperability concerns regarding regional ITS services. The ROO may recommend the adoption of national ITS standards for the regional provision of traveler, incident/event, and toll data.

¹ Booz-Allen & Hamilton, *Organizing for Regional Transportation Operations: An Executive Guide*, (July 2001). FHWA Publication No. FHWA-OP-01-137. Available online at <http://www.ite.org/library/ROOExecutiveGuide.pdf>

3. Relationship to Metropolitan Planning Organizations

These legacy organizations with their history and purpose of regional, interagency coordination would seem to be the logical place for ROOs to originate or operate. The MPO has its legal basis in *Section 339.175* of the *Florida Statutes*. This law defines the authority and responsibility, as well as the powers and duties, of the MPOs. The legal basis for ROOs is an interagency agreement or partnership.

Florida's Intelligent Transportation System Strategic Plan provides MPOs with guidance in the planning, programming, and implementation of integrated multimodal ITS at the statewide, regional, or local level as appropriate. Although MPOs are provided ITS guidance, their legislated focus is on transportation planning, policy, and program development, while the ROO focus is on transportation operations. The MPOs have a key role in ROOs because their support is needed to utilize federal funding. The MPOs may also be valuable aids to the ITS Section in the effort to maintain and update the regional ITS architectures.

Florida's *Draft Rule 940 Procedures*² suggest that the MPO role regarding ITS remain focused on the architecture, planning, funding, and systems monitoring of ITS, but also suggest that the operational oversight of regional ITS be conducted through the development of ROOs.

The remaining portion of this report will address the history of ROO development in Florida and provide recommendations for a “next step” strategy to implement ROOs within the FDOT ITS Program.

² Quigley, Diane E. (PBS&J), *Florida Department of Transportation – Draft Rule 940 Procedures in Florida* (December 2003). FDOT Contract No. C-7772. Available online at http://floridait.com/rule_940_implementation.htm.

4. Regional Operating Organizations in Florida

4.1 Background

Florida's ITS Integration Guidebook³ defines a ROO as:

“ ... a partnership among various transportation and public safety service agencies, collaborating with each other via computer networks and/or co-location of operations, to provide coordinated transportation operations in a region. Generally, a ROO includes the state DOT, city/county transportation divisions, transit agencies, toll authorities, public safety and emergency management services, MPOs, and private transportation stakeholders. ... A ROO may operate via physical co-location of multiple agencies' operations, or via virtual co-location through regional data servers. The purpose of all ROOs is to improve transportation operations via inter-agency regional/multi-state (mostly metropolitan area based) integrations ... The roles of a ROO in inter-agency ITS integration is well manifested in examples of several ROOs currently operating in the U.S. and Canada.”

The *Guidebook* provides evidence of a substantial national trend toward the formation of ROOs as a regional framework for the management and operation of ITS in a region.

4.2 Case Study – Central Florida Regional Transportation Operations Consortium

The Central Florida Regional Transportation Operations Consortium is an organization that began as the Central Florida ITS Working Group. This informal group had as its goals the improvement of transportation operations across facilities and the fostering of interagency cooperation on ITS projects. In April 2002, the Consortium developed a Memorandum of Understanding (MOU)⁴ to formalize this relationship among member agencies. The objective of this MOU is to:

Establish the organizational structure to promote coordinated decision-making and information sharing in planning, developing, and funding a Regional Transportation Operations Consortium of operating agencies within the Central Florida region for the deployment, operation and maintenance of ITS initiatives.

³ Center for Urban Transportation Research, College of Engineering, University of South Florida, *Florida's ITS Integration Guidebook*, FDOT (October 2002), 102. Available online at http://www.dot.state.fl.us/trafficoperations/its/its_default.htm

⁴ Memorandum of Understanding, Central Florida Regional Transportation Operations Consortium (April 2002), 2.

The MOU establishes three tiers of coordination teams:

1. Agency Managers, who are responsible for handling day-to-day operations
2. Leadership Teams, including the various public partners that are involved in ITS
3. Executive Committees, comprised of the two committees that provide program direction for the Florida Intrastate Highway System (FIHS) and arterials

Central Florida agencies that have executed the MOU include the FDOT District 5, Florida's Turnpike Enterprise, the Orlando-Orange County Expressway Authority (OOCEA), the City of Orlando, the University of Central Florida (UCF); Seminole, Orange, Brevard, and Volusia counties; LYNX, and Troop D of the Florida Highway Patrol (FHP).

In May 2003, the Federal Highway Administration (FHWA) awarded a \$20 million *i*Florida model deployment program grant prepared by the FDOT District 5 on behalf of the State of Florida. The *i*Florida partners are the signatories of the MOU. The prior existence of the MOU and the strategic partnering played an important role in the contract award due to the fact that the model deployment grant's success would be greatly enhanced by the existence of a functioning ROO.

4.3 Case Study – South Florida Regional ITS Coalition

The South Florida Regional ITS Coalition had its genesis in a previous regional effort. In August 1999, the FDOT District 6 led the drive to form a south Florida coalition involving the public sector transportation agencies in Miami-Dade, Broward, and Palm Beach counties. This tri-county region was formed through a MOU with the goal of "...providing uniform, multimodal, real-time traveler information."⁵

The FDOT Districts 4 and 6, and Florida's Turnpike Enterprise have led the effort to further establish the South Florida Regional ITS Coalition. The Coalition was formed in June 2003 to address the region's ITS needs. A Coalition Web site was launched in September 2003. The Coalition's current goals are to finalize the mission, vision, and goal statements; establish an organizational structure; and develop a MOU for its partner agencies. Organizational partnerships are evolving.

⁵ Memorandum of Understanding, Tri-County SunGuide ATIS Partnership – Final Draft (August 1999), 1.

South Florida agencies under consideration for partnership include the FDOT Districts 4 and 6; Florida's Turnpike Enterprise; Miami-Dade Expressway Authority (MDX); Miami-Dade County, including the MPO of Miami-Dade County, the Miami-Dade County Public Works Department, and Miami-Dade Transit; Broward County, including the Broward County MPO, the Traffic Engineering Division, and Broward County Transit; Palm Beach County, including the MPO of Palm Beach County, the Palm Beach County Engineering and Public Works Department, and Palm Tran, Palm Beach County's transit agency; the City of Boca Raton Traffic Engineering; and the Regional Transportation Authority.

4.4 Characteristics of Regional Operating Organizations

Each of the regional organizations identified in the previous MOUs is unique in its evolution, the specific services it performs, the way it is organized, and how it sustains its existence. An analysis of these organizations provides a set of basic characteristics as follows:

- *Organizational Genesis* – The ROOs have begun in one or a combination of three distinct manners:
 - Representatives of a number of agencies choose to come together to work cooperatively to solve transportation operation problems by picking specific, immediate-term projects or activities that will yield immediate benefits from interagency coordination.
 - A seminal event may generate the need to manage traffic and transportation through shared information, coordination, and technology.
 - A ROO is formed to undertake ITS operational tests or model deployment initiatives, and then continues to operate after those particular programs have expired.
- *Multiple Organizations* – This typically involves interagency participation horizontally, including similar agencies from different geographic jurisdictions across a region, and vertically, involving the state, local, special authority, and federal levels.
- *Independent Identity* – It is common for an organization to adopt its own unique name, acronym, and logo. This provides a unique branding and represents the joint ownership among the participating agencies.
- *Partnership Form* – Most of these organizations take the form of an interagency partnership that is not chartered by legislation or incorporated. Thus, all actions undertaken are done on the basis of intergovernmental agreements or other partnership agreements.

- *Champions* – Success of these organizations is driven by the vision, commitment, drive, and initiative of one or more champions operating at both the executive and management levels.
- *State Leadership* – It is highly unusual for these new organizations to be established without the strong participation and support of the state department of transportation.

5. Initial Actions for the FDOT ITS Section

The following are the recommended “next steps” for the implementation of ROOs within Florida:

- The FDOT Central Office should develop a statewide policy statement calling for the establishment of interjurisdictional and multimodal partnerships within a region. The goal is to have each region’s transportation system managed in a seamless, integrated fashion to optimize traveler satisfaction and system performance.
- The FDOT should review national operational and organizational trends, and develop guidance and guidelines for the establishment of ROOs.
- The Districts should coordinate with the FDOT Central Office to identify its role in defining ROO boundaries for statewide consistency.
- The FDOT ITS Section should determine how ROOs will coordinate and share data with the FDOT ITS Change Management Board (CMB).
- It should be incumbent upon the FDOT to determine the need, required resources, and level of funding necessary to support this new requirement.
- The FDOT should establish incentives to encourage the agencies responsible for transportation system management and performance to work in a cooperative and integrated manner.
- The FDOT should initiate actions to add appropriate language to the *Florida Statutes* to address the “regionalization” of transportation operations.
- The FDOT Districts should take the leadership role in fostering the development of ROOs.
- Each District, in consultation with the appropriate local governments, agencies, and MPOs, should develop a plan to manage and maintain transportation operations. The operational planning could be further formalized in a regional concept of operations and be utilized as an essential element of the regional architecture. This process will serve to further engage regional planning and operational stakeholders in strategic and tactical operations management.
- Each District should develop a ROO that will enable them to provide the ITS services they plan to deliver over the next five years.