



D4 Transit Database GIS Application

Developing Transit Apps in A Data Rich Industry
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Background Introduction

- Goal – Enhance the existing transit data acquisition, analysis and sharing process
- Objectives
 - Supplement FTIS/NTD data
 - Provide higher resolutions and continuous transit data for verifying demand variations in terms of TOD, DOW, seasonal, etc., at desired spatial granularity and contexts.
- Outcome
 - Adopted and refined a comprehensive transit data structure
 - Developed an interactive geospatial and transit analysis tool

Coordination

- Kick-off on 7/1/2010 jointly by D4 PL&EM & OMD
- Stakeholders
 - Transit Agencies (MDT, BCT, Palm Tran, Tri-Rail)
 - MPO (Miami-Dade, Broward, Palm Beach)
- Coordination
 - FDOT, Public Transportation Office
 - FDOT, D5
 - FDOT, D7

Transit Data Received (as of 10/10/2014)



	Ridership-Farebox ¹		APC	GIS		GTFS	Data Resolution			Amenities
	Monthly	Daily	Daily	Facility & Amenity	Route/ Stops	Annual	Route	Bus ²	Run ²	Stop Infrastructure
BCT	●	●		●	●	●	●			●
MDT	●		●	●	●	●	●	●	●	●
PalmTran	●		●	●	●	●	●			●
Tri-Rail	●			●	●	●	●			●

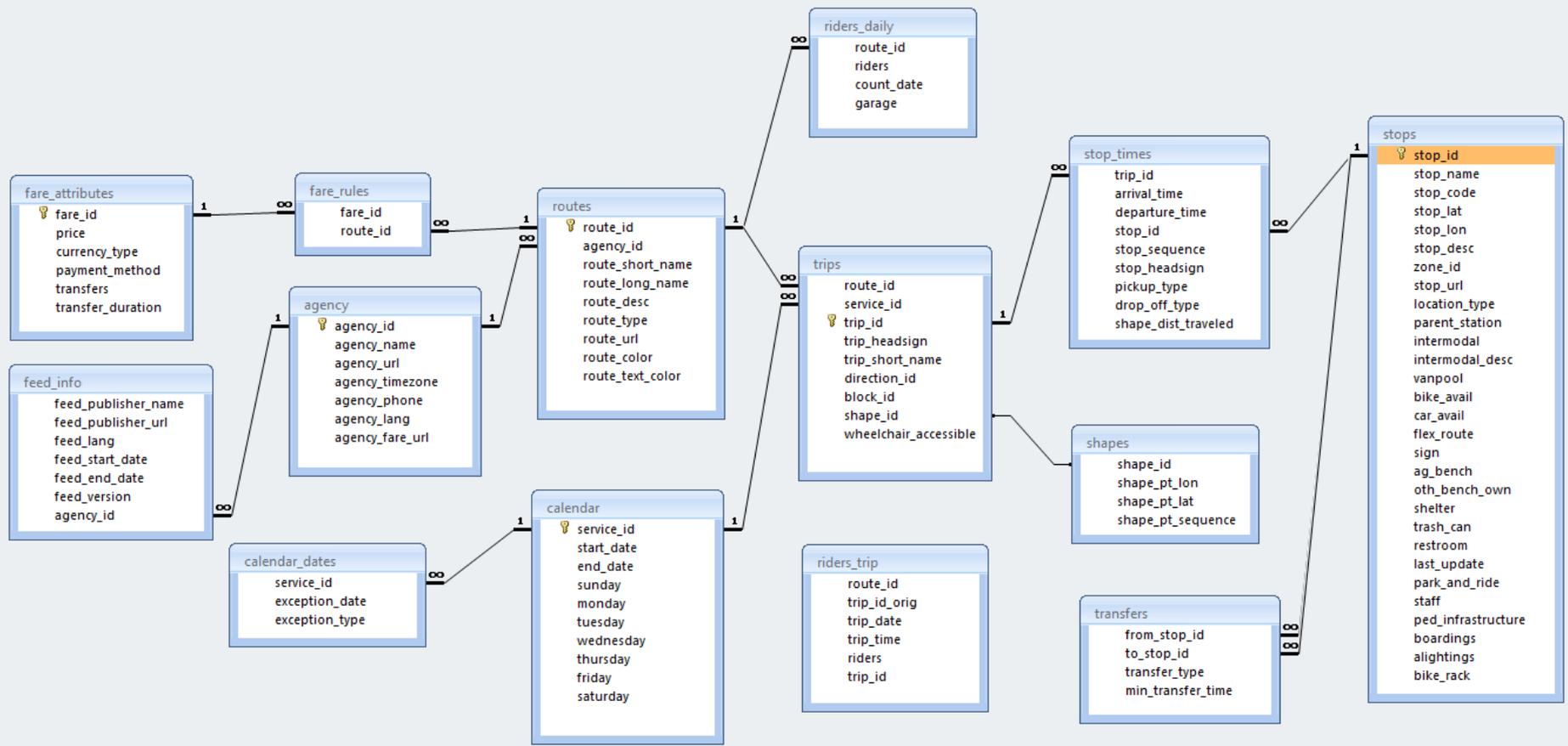
¹ Ridership includes Community Shuttle data from BCT and Shuttle Buses from Tri-Rail

² Bus and Run information comes from the APC system on a daily basis

Database Development

- Based on D7/GTFS Data Model
- Revised to allow ridership data collected at various spatial (stop, route, etc.) and temporal granularity

Transit Database Structure



GIS Tool Demonstration

Broward County Transit

Miami-Dade Transit

Tri-Rail

GIS Tool Demonstration



GIS Tool Demonstration



Challenges and Lessons Learned

- Data Acquisition
 - Different standards and practices how transit agencies collect, manage, and store information
- Varied progress on the deployment of data collection devices
 - MDT has APC/AVL
 - BCT is in the process of obtaining an updated AVL system
 - Palm Tran is in verification process of AVL/APC system
- Funding
 - Lack of consistent and designated funding sources
- Need a host server for the database/application

Next Steps

- Short-Term
 - Continue to maintain/update database
 - Start Phase II of data collection and coordination effort
- Long-Term
 - Request and acquire funding support from other public agencies such as MPOs, RPCs, etc.
 - Identify and develop funding mechanisms and options.

Contact

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