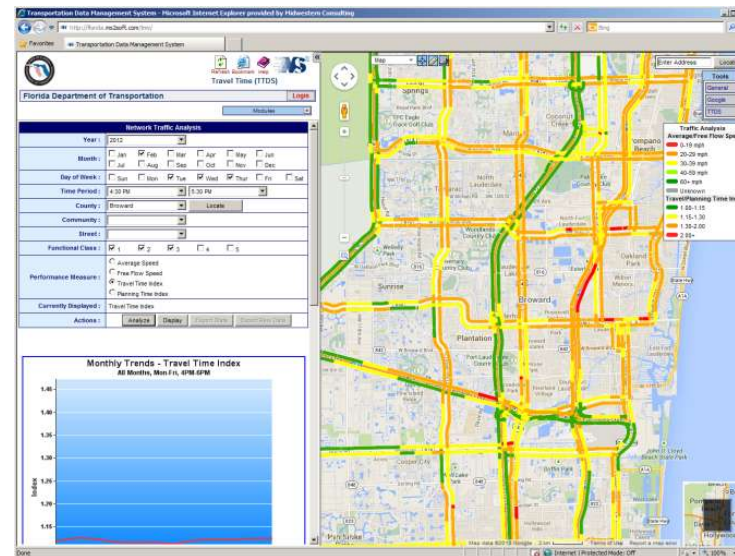




Cloud-based Travel Time Database System



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Travel Time Data Needs

Macro Level (Corridor/Segment)

- Transportation System Performance Measures
- Travel Demand Model Validation and Calibration
- Congestion Management

Micro Level (Spot)

- Traffic Engineering Analysis

Road Network Definitions



Corridor

Segment

Spot

Legacy Travel Time Data Source



Travel Time Studies (Floating-Car Method)

- Point measurement
- 1-sec interval
- Instant speed / position
- Statistics for spot level and above

Modern Travel Time Data Source



Commercial Data

- Segment measurement
- 15-min interval
- Statistics for segment level and above

NAVTEQ Traffic Speed Data

RDS/HD



Satellite



Connected



Government / Enterprise



FHWA NPMRDS Data

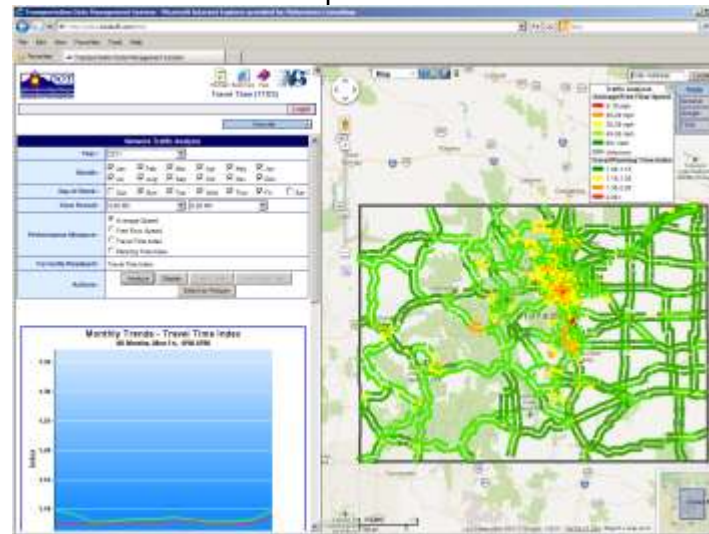
- National Performance Management Research Data Set (NPMRDS)
- Delivered by NAVTEQ
 - Freight / Passenger / All Traffic
 - 5-min interval everyday
- NHS Coverage Only
 - as defined by MAP-21
- Free for State DOTs and MPOs
- Data from Oct 2011 and on

NAVTEQ Data Advantages

- GPS-grade Network (GIS data)
- Detailed Speed Data for Arterial Roads / TMC-coded Segments
(by year / month / day of week / 15-min)
- Summary Speed Data for ALL Roads, including Local Roads
(by year / day of week / 15-min)
- Data available from 2010 and on

TTDS System Concept

Travel Time / Speed Statistics
Region / County / City / Corridor / Segment / Spot



Road Attributes

- Traffic Volume
- Speed Limit
- # of Lanes
- Incident
- Weather

Aggregation

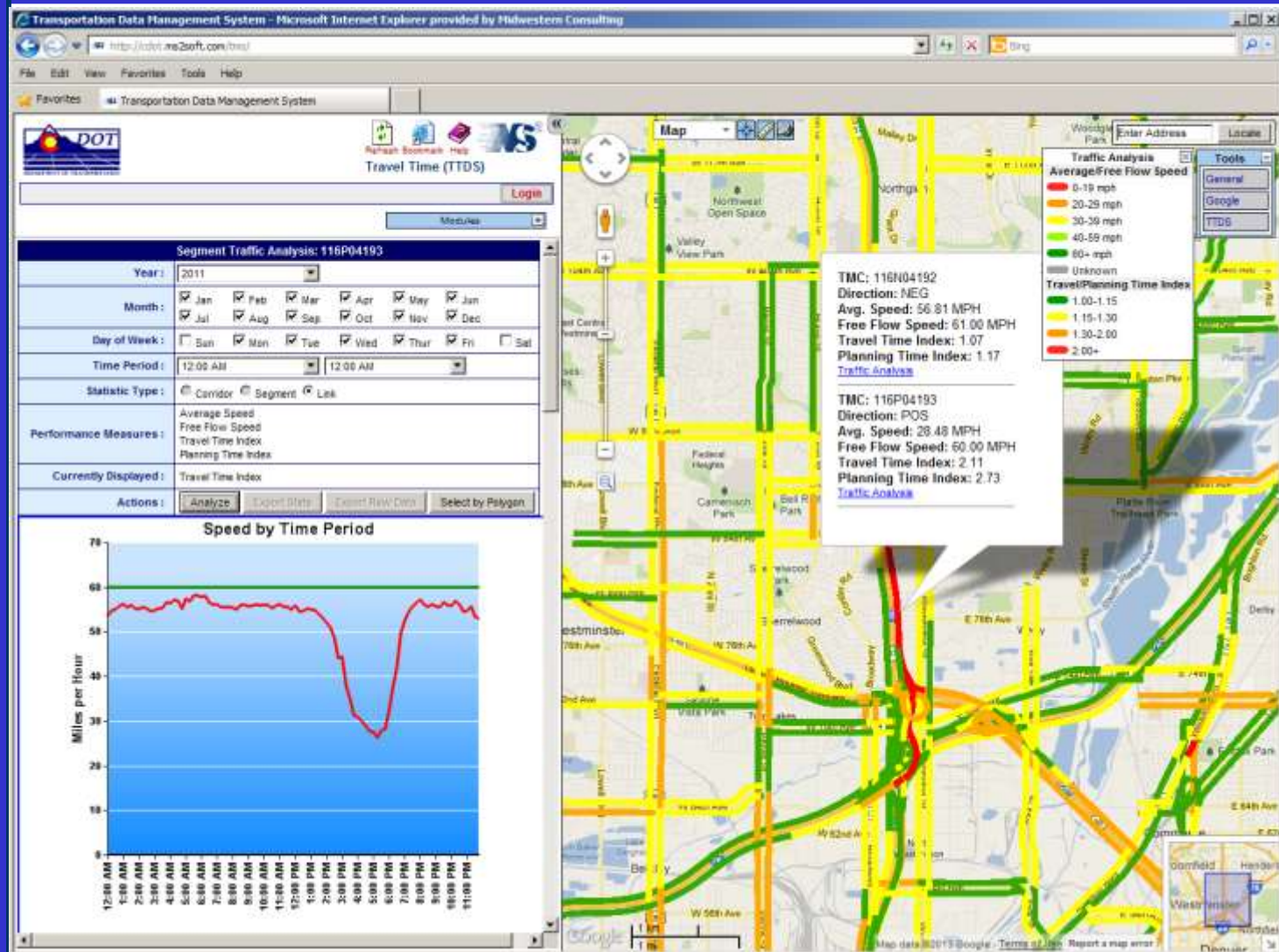
Raw GPS
Data

Commercial
Data

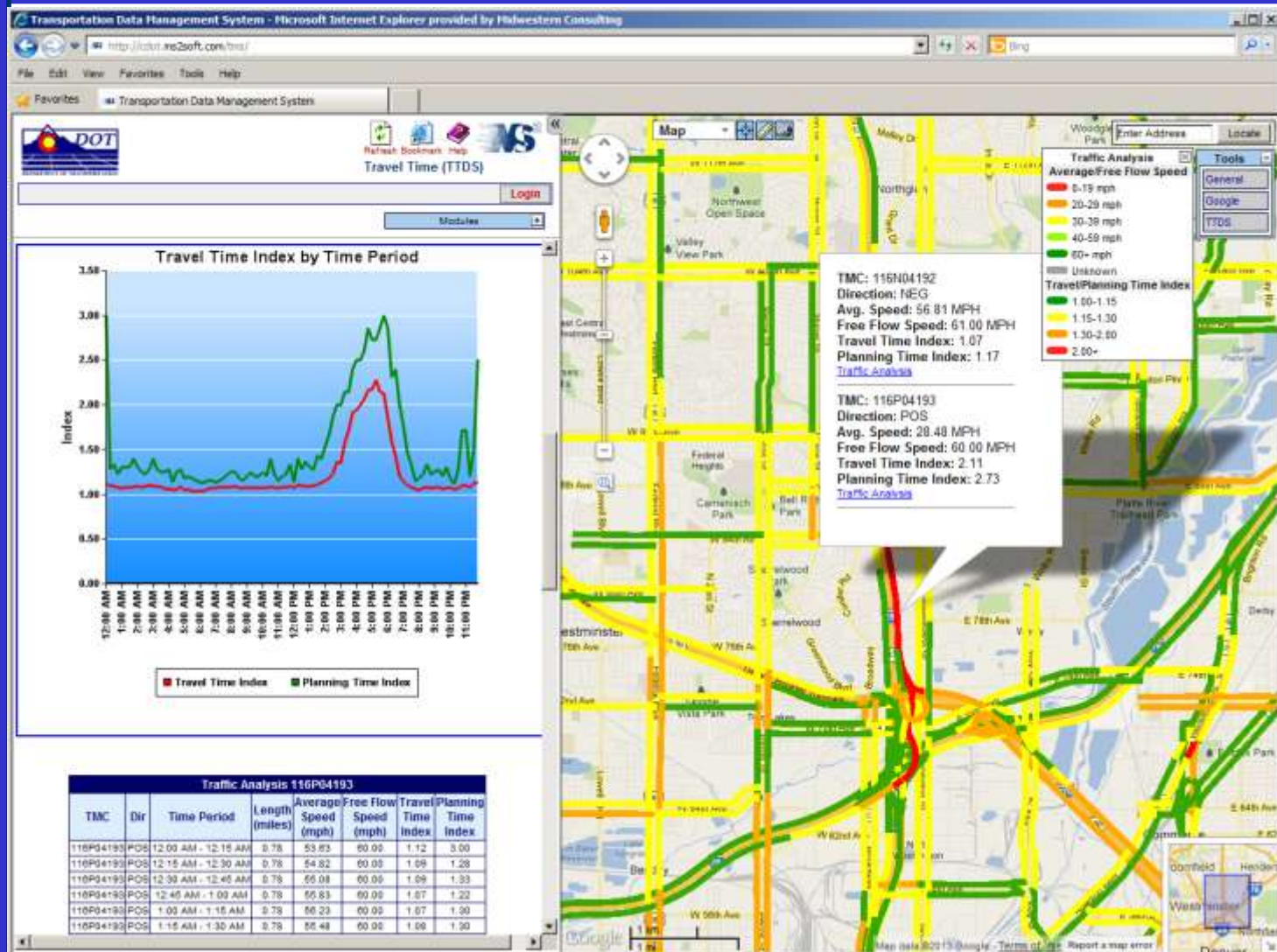
System Features

- Raw GPS Data Processor
- Segment Statistic Data Processor
- Roadway Attribute Management
- Custom Analysis Tools
- Spot Analysis
- Hybrid Use of Google Maps & ArcGIS Server

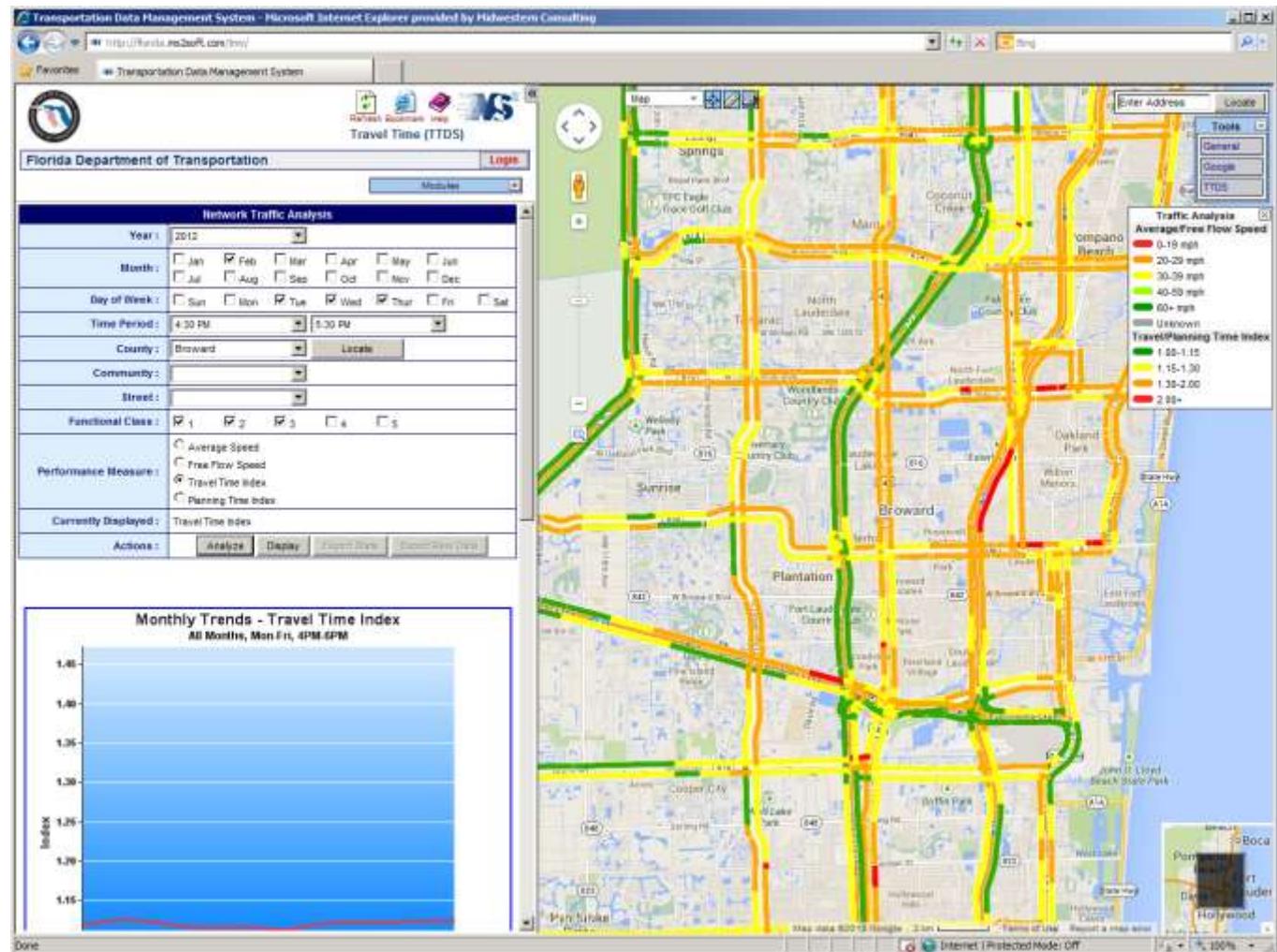
Segment Speed Profile



Travel Time Index Profile



FDOT TTDS Prototype



<http://Florida.ms2soft.com/tms>