Cloud Based Transportation Data Management

2015 Indiana MPO Conference

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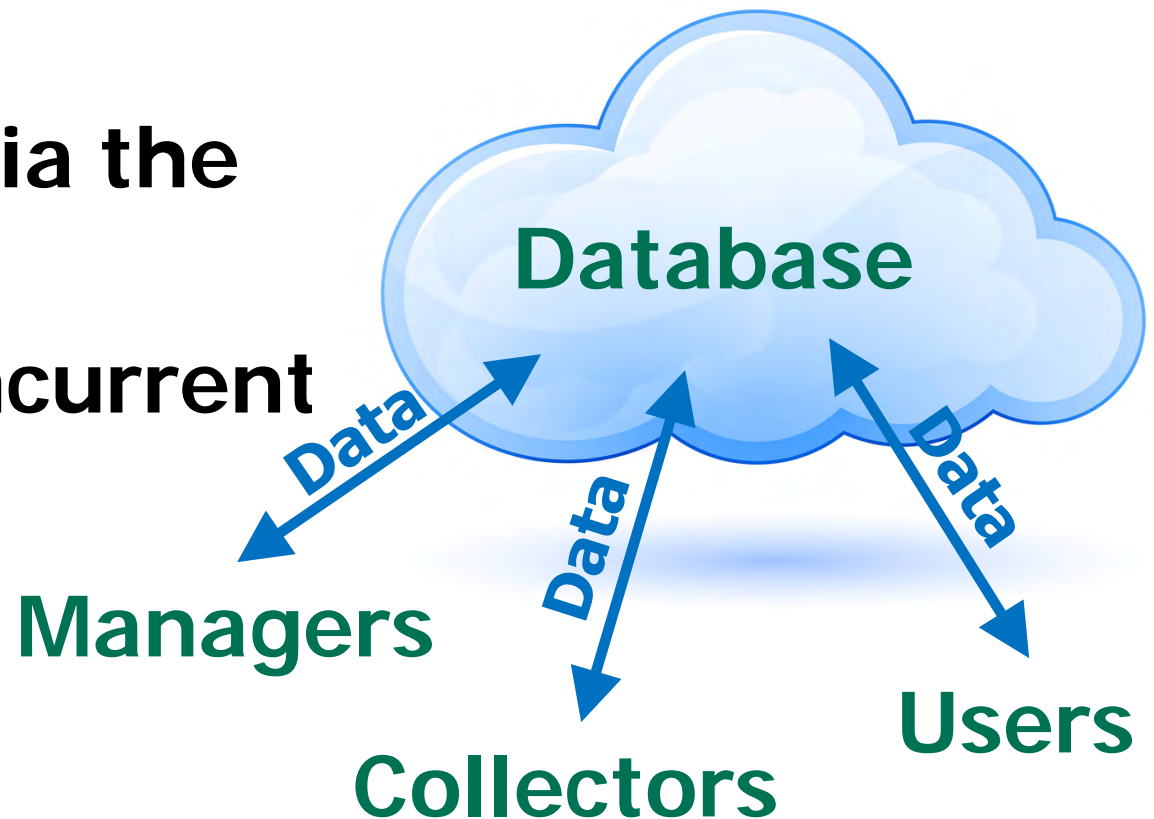Traffic Engineer, INDOT

October 13, 2015

Goals

- **Define Cloud Based Data Management**
- **INDOTs current efforts**
- **Introduction to TCDS by MS2**
- **Integration with ESRI**
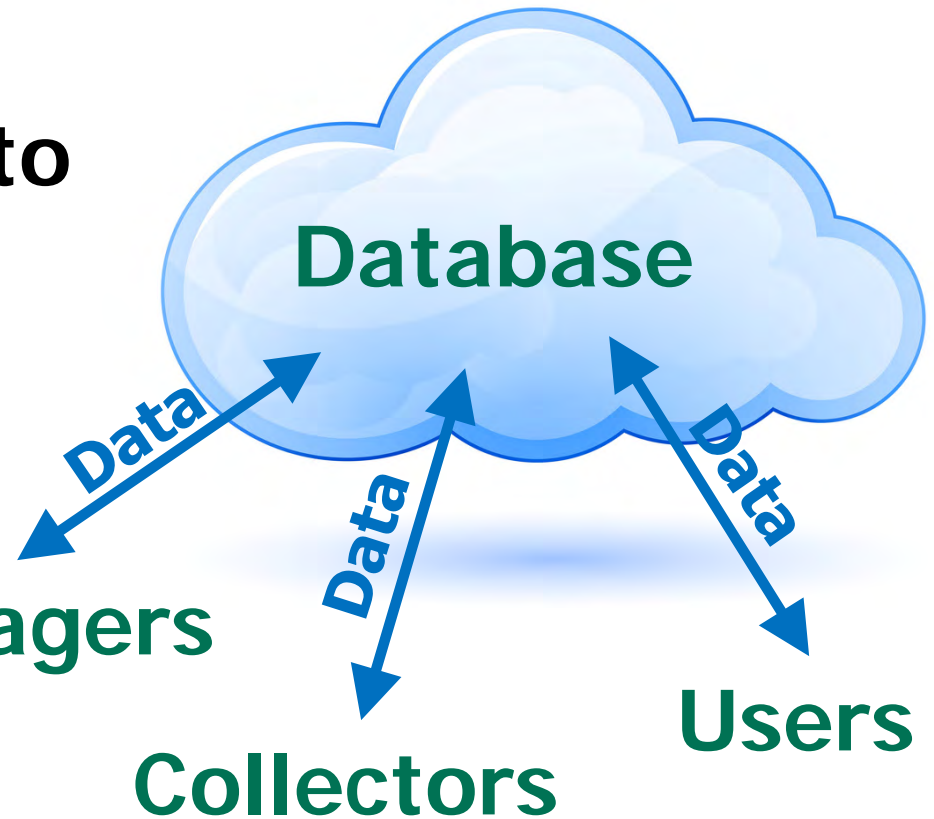- **Future enhancements**

The "Cloud"

- **Off-Site**
- **Accessible via the Internet**
- **Multiple concurrent users**

Cloud Advantages

- **Faster Answers**
- **Faster Feedback to Collectors**
- **Wider access**
- **Self Service**
- **Analysts free to improve data quality**

Database

Data

Data

Data

Managers
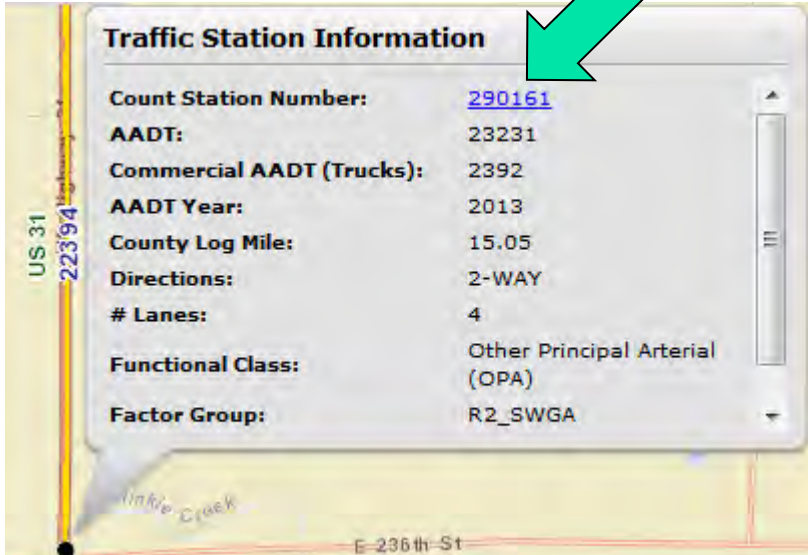
Collectors

Users

Current INDOT Efforts

- **Switched to new online system**
- **Traffic Count Database System (TCDS)**
- **Provided by Midwestern Software Solutions (MS2)**
- **Houses data from short term and permanent sites**
- **Offers access to detailed raw count data as well as Annual Average Daily Traffic**

How to find TCDS

- **Type indot.ms2soft.com into address bar (no "www")**

- **www.in.gov/indot > Resources > Traffic Data > Traffic Count Database System**

- **Link from Station Information Bubble on current Interactive Map**

Traffic Station Information

Count Station Number:	290161
AADT:	23231
Commercial AADT (Trucks):	2392
AADT Year:	2013
County Log Mile:	15.05
Directions:	2-WAY
# Lanes:	4
Functional Class:	Other Principal Arterial (OPA)
Factor Group:	R2_SWGA

TCDS by MS2

TCDS by MS2

TCDS by MS2

TCDS by MS2

- **View data for entire roadway, each direction or individual lanes and historic data.**

Directions: 2-WAY | NEG | POS
1 | 2 | 1 | 2

AADT		Year	AADT	DHV-30	K %	D %	PA	BC	Src
☑ ☒		2014	30,756	2,893	9	54	20,043 (65%)	10,712 (35%)	
☑ ☒		2009	37,137				25,561 (69%)	11,575 (31%)	
⊞									

TCDS by MS2

- **Volume**
- **Speed**
- **Class**
- **Weight**

VOLUME COUNT — View All | Graphs/Rpts

	Date	Int	Total
👁	Sun 6/8/2014	60	30,586
👁	Sat 6/7/2014	60	31,172
👁	Fri 6/6/2014	60	40,928
👁	Wed 6/4/2014	60	35,599
👁	Tue 6/3/2014	60	33,972
👁	Fri 10/2/2009	15	41,879
👁	Thu 10/1/2009	15	38,470

Create | Flag/Unflag | Edit Multiple | Export Totals

VOLUME TREND ? — Graph

Year	Annual Growth
2014	-4%

SPEED ? — View All | Graphs/Rpts

	Date	Int	Pace	85th	Total
👁	Wed 6/4/2014	60	65 - 75	77	35,599
👁	Tue 6/3/2014	60	65 - 75	76	33,972

Create

CLASSIFICATION ? — View All | Graphs/Rpts

	Date	Int	Total
👁	Sun 6/8/2014	60	30,586
👁	Sat 6/7/2014	60	31,172
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TCDS by MS2

- **Display options**
- **Selection tools**
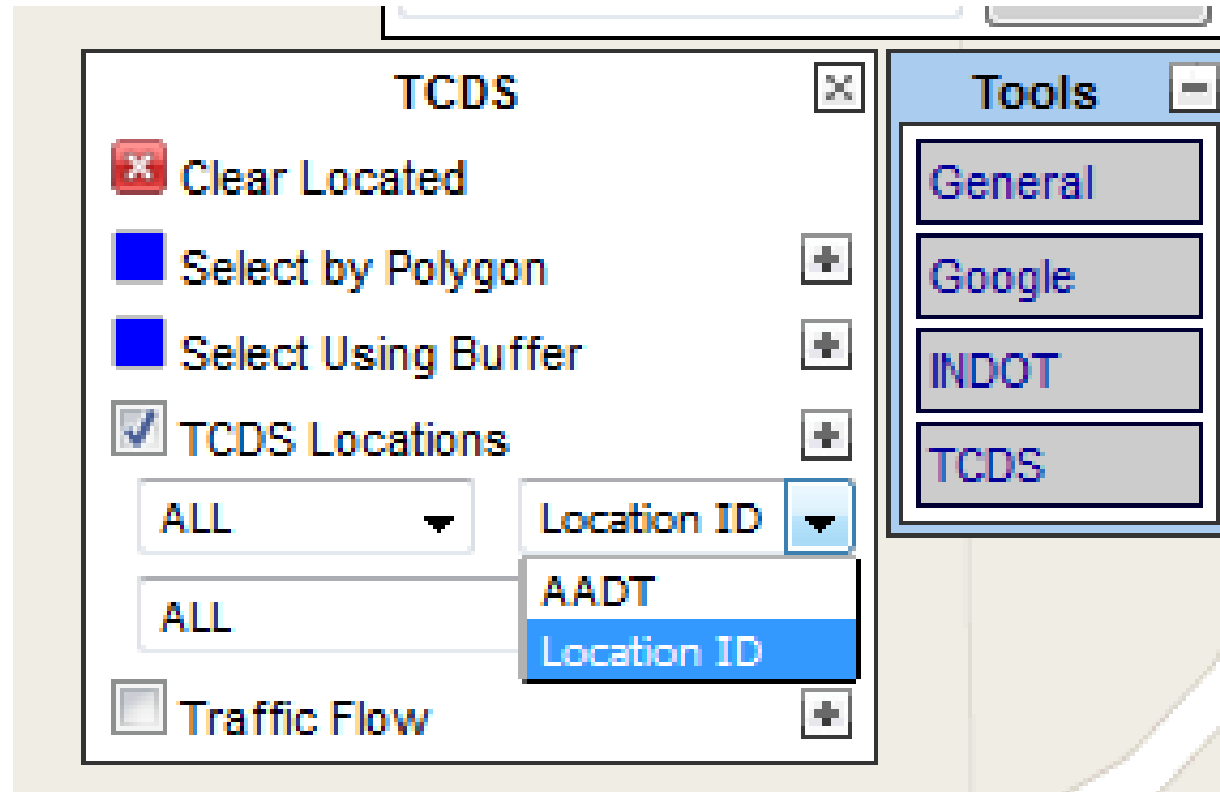
TCDS by MS2

- **INDOT Layers**
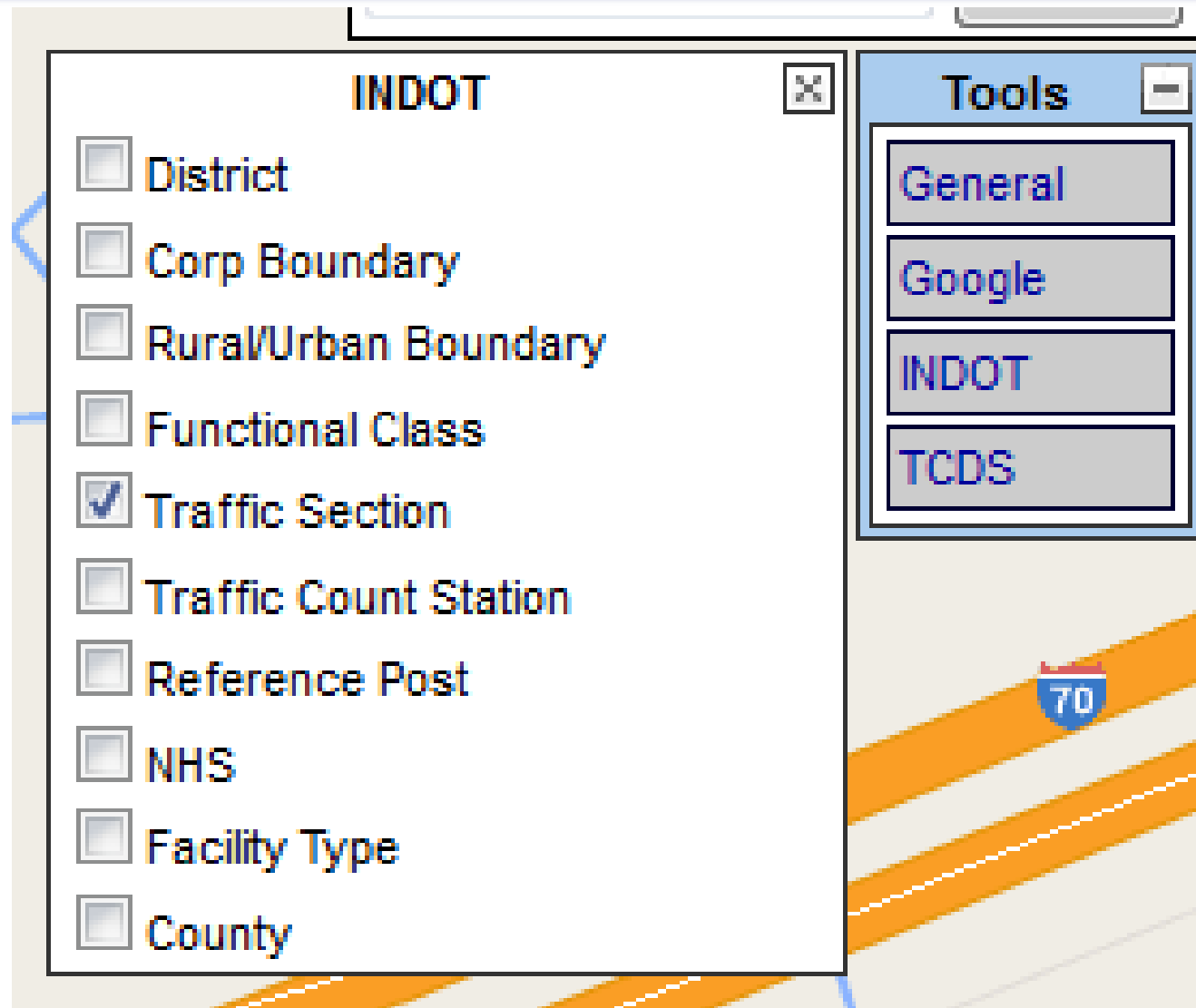
Integration with ESRI

- **ESRI Roads and Highways (RAH) serves as INDOTs authoritative inventory of Assets and Attributes (Roads, Lanes, Bridges, Functional Classification, etc.)**

- **Working to Link TCDS with RAH so that all attributes in TCDS are populated from authoritative source**

- **Edits will be made in RAH tools (Roadway Characteristics Editor)**

The future with TCDS and RAH

- **New stations will be added via a proposal/acceptance model using RCE (training will be provided)**

- **Stations managed in RAH**

- **Will allow identification of duplicates and clean up of stations**

Future Enhancements

- **Improved Coversheet workflow**

- **Greater integration with Small Urban and Rural Planning (SURP)**

- **Considering unified Station ID convention (currently have at least three)**

- **Considering implementation of "Virtual" Stations to achieve full coverage.**

- **Leverage MioVision in coverage count program to expand classification**

Questions

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