AASHTOWare Data Initiatives

Standard Data Integration Framework Research

AASHTOWare Project Data Analytics™

2018 Joint Policy Conference
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Standard Data Integration Framework Research Project
Today’s Reality...

AASHTOWare products:

- Integral and key parts of state DOT IT environments
- Contain critical data needed by other DOT systems
- Lack comprehensive data dictionary
- Data integration with other DOT systems is ad-hoc
DOT Functional Integrations with AASHTOWare Project
The Vision...

- Seamlessly and securely integrate AASHTOWare products
- Exchange high-value data with DOT systems
- Develop / Maintain comprehensive data dictionary
- Support a number of objectives in the AASHTOWare Strategic Plan 2020
Standard Data Integration Framework Project

- Focus on AASHTOWare and typical enterprise DOT systems
  - Program, project, and fund management
  - Enterprise resource planning
  - Geospatial information
  - Asset management
- Work closely with a number of DOTs
Phase 1

August 2018 – August 2019 (tentative)

- Analyze AASHTOWare product integration points
- Analyze AASHTOWare and DOT system integration
- AASHTOWare data dictionary
- Data summit (with all interested DOTs)
- AASHTOWare data standards and management procedures
- Prioritized roadmap of AASHTOWare integrations
Phase 2

August 2019 – August 2020 (tentative)

- DOT integration business process models, use cases, sequence diagrams
- Document DOT effort required to integrate
- Standard integration approach and possible adoption by National Information Exchange Model
- AASHTOWare-DOT systems integration roadmap
AASHTOWare Project Data Analytics™
The Evolution of Decision Support

- Comprehensive database
  - Preconstruction
  - Construction
  - Reference Data
- Visualize results
  - Easy to see behavior
- The Market Leader

Original Structure of BAMS/DSS

Managerial Tool
Pre-Award Bid Review
Rich Historical Database
Collusion Detection
Estimation
Litigation Support

Circa 1980s
What Happened Next?

- Becomes Bid Analysis Management System (BAMS)
- FHWA publishes technical guidelines to prevent bid rigging
- Kansas becomes first licensing customer in 1982
- AASHTO purchases in 1985
- 17 state DOTs onboard
- More than collusion detection – support for estimation and ad hoc reporting
- Moves to client/server in mid-90’s
- Rebranded as part of AASHTOWare Project™
Data-Driven Decisions
Single Source of Truth - Visualizing your data

Cost Estimation
Proposal Preparation
Bid Letting, Analysis and Award
Construction Management and Inspection
Materials Management
Civil Rights and Labor

Data Analytics

Dashboards
Reports
Decisions
Project Proposal & Solicitation

- AASHTOWare Project Data Analytics solicitation package released on July 9th.
- Seeking 12 agencies
- $750,000 total contribution – can be divided over four fiscal years
- Approved 100% State Planning & Research (SP&R) Funds – Waiver of state match
- Production ready software, every 2 – 4 weeks, for participating agencies over 48 Months
- Deliverables
  - 1. Two construction dashboards
  - 2. Web-based features
  - 3. SaaS themes
  - 4. Product documentation
  - 5. Additional enhancements (TBD)
Benefits/ Return on Investment

- Receive $10+ Million worth of software development for $750 K
- Unified product + single source of truth
- Easy to use analysis tools
- Enable data driven decisions and information sharing
- Software as a Service (SaaS)
  - Minimal IT
  - Rapid feature delivery
  - Anytime, anywhere access by all
- **More** than just a BAMS/ DSS upgrade
- No SAS® licensing
Thank You