AASHTO Trns•port Update

2007 Subcommittee on Construction
Biloxi, Mississippi
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South Carolina DOT
Overview

- Trns·port Strategic Goals
- What is NGT?
- Development Method
- NGT Phase 1 Progress
- Other Initiatives
- NGT Impact on Construction Users
- Agency Involvement
Strategic Goals

- Align with the AASHTOWare strategic direction
  - Web services, web-based clients, XML
- Eliminate unnecessary boundaries
  - Unified data and security models and business rules
- Bring Trns•port’s value to a broader audience
  - Web-based access, support for multiple devices
- Reduce agency Total Cost of Ownership (TCO)
  - Easier deployment, support, training, integration, use
Strategic Goals...

- Provide architecture that meets the needs of current and future customers
  - Flexible, loosely coupled Services-Oriented Architecture
  - Improved reporting capabilities
- Build a consistent, unified data model
  - Also unify business rules and security model
- Enable easier integration with other systems
  - Web service interfaces based on industry standards
What is NGT

- Rewrite from the ground up
- Business scope
  - Meet same business needs as Client/Server Trns•port
  - Remove obsolete features and features never used
- Technical scope
  - Microsoft Windows servers
  - Microsoft .NET Framework
  - Oracle and DB2 databases
  - Standard web browsers supporting CSS and Javascript
- Interfaces to C/S modules (Temporary)
Overview

Strategic Goals

What is NGT

Development

Phase 1 Progress

Impacts on Constr.

Other Initiatives

Involvement

Information

Contacts

Questions

- Agile Development Method
  - Method intended to provide flexibility and ongoing owner input in the development of software
  - Traditional method ("Waterfall")
    - Requirements written and fixed before start of software development
    - Contractor interprets requirements without ongoing input from owner
    - Results depend on how well the owner writes the requirements
  - Agile Method
    - General requirements written prior to start of software development
    - Contractor develops software in small increments (sprints) and presents results to owner for feedback
    - System requirements (backlog) and contractor understanding of owner preferences evolve during the development
Phase I Progress

- Implement web Trns•port Preconstruction functions (proposal, letting, and award)
- Status to date
  - 24 Development Sprints completed
  - Initial Development managed by TTF
  - Preconstruction TRT now manages
  - Software available on preview site
  - Partial release scheduled for September 2007
  - Full release of Preconstruction functionality in July 2008
  - Continuous automated testing
  - Interface Styles being evaluated
- Precon construction workflow completed
  - Project and proposal definition
  - Bid processing
  - Key reports (Detail Cost Estimate, Proposal)
  - Security and System Management
  - Data Migration
- Kansas DOT Pre-release testing
NGT Design Benefits

- Greater Agency Customization
  - GUI Interface
  - Reports
  - Business Rules Modification/Addition
- No ‘Re-install’ of New Releases
- Unified Data Model

Architecture – Business Rules Uniquely Placed
- Can be changed without major rewrite
- Allows Customization by Licensing Agency

- WEB Application
  - Transportable Across Different Platforms
  - Lower End User Hardware Cost
  - Distribution of Software Streamlined

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Strategic Goals

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Questions
• Construction TRT now working to capture current Business Rules
• Result of TRT work will be preliminary backlog and user stories for Construction Management module
• When this work is completed, TTF will work toward development of a solicitation proposal for the Construction Management functional area.
Civil Rights and Labor Management System

- Solicitation Responses were received in February 2007
  - 11 Agencies committed to project (12 desired)
  - Adjustments made to contract to enable start of project.
  - TRT appointed and met for first time in May 2007
  - Development work started in June 2007
  - Additional states have shown interest

- Technical Review Team (TRT) from Participating Agencies

- Project Scope
  - Time - 18 Month
  - Cost - $3,370,106 (prev. $3,798,000)

- Compatible with NGT
  - Much of the information already part of Trns·port
  - Won’t require license of other Trns*port Modules
  - Licensees will get Entire Trns*port database
CRLMS Information

- Contract-related Information
  - DBE Goal Setting on Contracts
  - Bidders Data
  - DBE Commitments
  - Subcontract and Supplier Quotes
  - Approved Subcontract Data
  - Prompt Payments
  - Completed Contract Data
CRLMS Information

- Vendor-related Information
  - Vendor Data, Addresses, Officers / Staff
  - Work Classes
  - Financial Data
  - DBE Certifications

- Employee-related Data
  - Payroll Data and Tracking
  - Wage Decision Information
  - On-the-Job Training Program(s)
  - Trainees
CRLMS Information

- Reports / Analyses
  - Semi-annual and Annual Reports on DBE Commitments and Subcontracting
  - Program Goal Setting
  - Market Availability
  - Market Utilization
  - FHWA Form 1391
  - FHWA Form 1392
Materials Management Initiatives

- Michigan Initiative – Materials Prework
  - Began work on development of Materials Management Backlog, User Stories and portion of web Trns·port code
  - Funded work completed
  - May be continued if other agencies participate
- Functions – Identified Additional Functions Beyond SiteManager
- Materials Functional Area TRT Appointed to develop backlog and user stories
How You and Your Agency Can Help

- Agency business expert participation
- Preview software site & test case repository
- Use Cloverleaf NGT user forum
- Respond to surveys (e.g., impact assessment)
- Be a beta site – installations and user data
- Champion solicitations
- Accelerate the schedule by providing funding
How You and Your Agency Can Help

- Due to the Agile methodology approach, your involvement NOW can directly influence Trns•port value to your agency
- Provide input and feedback
  - Test drive the working software
  - Suggest improvements and features
  - Participate in the forum
Summary

- Necessary process to keep systems in step with technological improvements, user expectations, and Strategic Plan.
- Unified data, modular architecture, and ability to customize will lower agency total cost of operation (TCO).
- Agile Development Method utilized to consider user input during development to have results more accurately reflect user desires.
- web Trns·port Preconstruction to be released in 2008.
- Civil Rights Project underway – additional support will enable earlier development of deferred functions.
- Functional Area TRTs in progress for Construction and Materials. Other Functional Area TRTs to be appointed (potential participants needed). These efforts are moving toward solicitation proposals.
Where to get more information

http://www.cloverleaf.net/ngt

- Trns•port 2005-2010 Long Range Work Plan
- Next Generation Trns•port Phase 1 Work Plan
- Annual Trns•port Maintenance, Support, and Enhancement Work Plan
Contact

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Questions?