



# AASHTO Trns•port Update

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2007 Subcommittee on Construction

Biloxi, Mississippi

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South Carolina DOT



## Overview

*Strategic Goals*

*What is NGT*

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



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- 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



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- 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



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- 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)



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- **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



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- 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



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- **Preconstruction 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**





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## 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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- 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.



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## **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



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## **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



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## **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



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## **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



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## 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



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## 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





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## 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



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## 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



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## 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



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## Contacts

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## Questions?