The Maintenance Decision Support System (MDSS)

*Exploring Future Directions*

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The MDSS Project

- Activities in the near term (remainder of FY02):
  - June 2002: Functional Prototype demonstration to stakeholders, user surveys and feedback
  - Remainder of Summer 2002: Labs complete module documentation and last minute enhancements
  - Sept 2002: MDSS Prototype Release 1
Looking Ahead to the Future of MDSS

**Where do we go from here?**

**Proposal:** Develop a *multi-track path* which:

- Releases the *latest technology* to the user community

- Provides a parallel track which includes a *field demonstration with V&V* (Validation & Verification)

- Allows for the user community to *feed back new requirements* for research into a Long Range Test Bed
The Multi-Path Vision: The Next Generation RWIS Path

Prototype Release 1

NG/RWIS

Next Generation RWIS: Real-World Products Deployed by VAMS to Users
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What:
- State DOTs define requirements
- VAMS develop and deploy systems
- Development is Market Driven
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$: Mostly State Funded (some Federal for the Labs)
The Multi-Path Vision: MDSS Demo, V&V Path

Prototype Release 1

Demo/V&V

MDSS Demonstration – Validation and Verification
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What:
-A Field Demo of the MDSS Functional Prototype
- To Allow V&V of the MDSS Modules
- To Expose the Complete Base Prototype to at least 1 State DOT
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- Used by a State DOT
- Possible 3rd Party Evaluation

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U.S. Department of Transportation
Federal Highway Administration
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$: Flywheel
- FHWA Funding to the Labs
- Possible State Contribution
Future VAMS Deployment

- VAMS Utilize MDSS Components & Their Own Research to Field the Latest Techniques and Technologies

- VAMS Provide Feedback to the Test Bed Track which helps to drive Future Advanced Research Priorities
The Multi-Path Vision: Open Research Test Bed

Prototype Release 1

NG/RWIS

Demo/V&V

Continued Deployment

Open Research Test Bed

MDSS Open Research Test Bed
The Multi-Path Vision: Open Research Test Bed

MDSS Open Research Test Bed

What:
- Open R&D to Continue MDSS Development
- Divorced from real-world operations
- Advanced Research
- Pushes the Envelope
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**Prototype Release 1**

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$$:
FHWA (primary), State DOTs, Partners (may need to contribute $$)
The Multi-Path Vision: MDSS Feedback Loop

- States Provide New Requirements/Needs to VAMS

- Research Needs Flow to the Open Research Test Bed via the Advisory Committee

- New Research/Techniques Flow Back to the VAMS and States for Deployment and Customization
The Multi-Path Vision: The Future of the MDSS

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Continued Deployment

Open Research Test Bed

The Future of the MDSS

An Open Discussion about the Future Path of Surface Transportation Related Research is Welcomed by ALL Participants…