



Intelligent Transportation Systems
U.S. Department of Transportation



Clarus ICC Meeting #3

Salt Lake City

November 15-17, 2005



Agenda

Welcome	Paul Pisano/James Pol/Dave Kinnecom - UDOT
<i>Clarus</i> Initiative Overview	Paul Pisano/James Pol
<i>Clarus</i> Business Models Review	Rick Schuman
NOAA Surface Program	Mike Campbell/Jim O'Sullivan
Update on VII	Kevin Petty/Andy Stern
Overview on <i>Clarus</i> System Design	Kyle Garrett/Brenda Boyce
Discussion on Breakouts	James Pol



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**Welcome from
Dave Kinnecom**

UDOT TMC Director



Introductions

- Name
- Organization

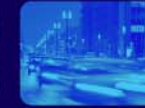


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Clarus Overview

Paul Pisano
Road Weather Program Manager
FHWA Office of Transportation Operations



The Problem

- Adverse Weather affects Operations and Safety
 - 1.57 million weather-related crashes, leaving over 713,000 injured and over 7,300 dead (annually, based on an 8 year average)
 - Delay caused by adverse weather has reached nearly 1 billion hours per year
- NOAA estimates that weather adversely affects 1/3 of nation's GDP

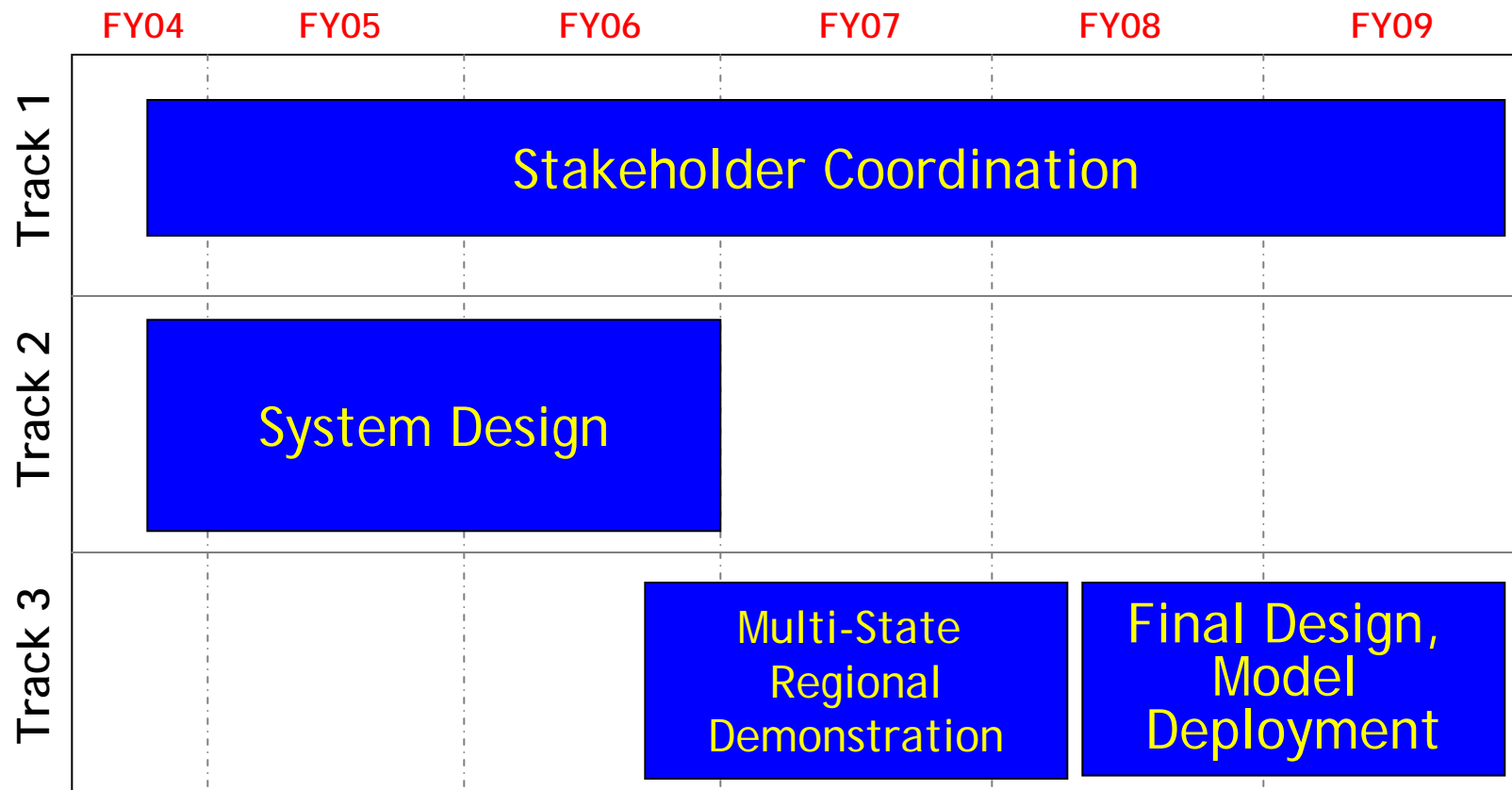


Changing Current Practices

- Weather products today generally are insufficient for transportation operations
 - Too generalized
 - DOTs investment in road observations
- Surface weather forecasting benefits from more data from more sources
 - Ground observations are plentiful, but not managed to form coherent picture
- Managing all available ground data yields new products



Clarus Roadmap Overview





Value to the Public Sector

- Offset some of the deployment costs of new Environmental Sensor Stations (ESS) by integrating observations from other surface observation sources
 - Asset multiplier to additional sources of data that otherwise would not be integrated
- Utilization of quality-controlled data
 - More effective decision-making
 - Better forecasting
 - More informed operations management of the State DOT's resources
 - Direct QC feedback to DOT ESS maintainers
 - Easy access to RWIS data from neighbor districts and states
- Low cost to implement, reduced cost for determining maintenance needs



Value to the Weather Enterprise

- Steady, reliable access to quality assessed data
- Improved market entry for value added services
 - Tailored, niche, and personalized dissemination
- Improved quality data stream for new forecast development
 - New models are sensitive to quality of data
 - Broader geographic and temporal range of data
- *Clarus* will likely be the portal to access VII-related weather data



Activities & Actions

- Concept of Operations
 - Complete
- System Design Contract
 - High Level Requirements completed
 - System Architectural Description drafted; currently under review
 - ESS Survey drafted; currently under review
 - COTS Review drafted; currently under review
 - Detailed Requirements under development
 - Task Force met Nov. 1 & 2



Activities & Actions

- On-going coordination with NOAA
 - Information sharing with Forecast Systems Laboratory and National Weather Service
- Business models assessment
 - Comprehend the capabilities of enterprise to sustain *Clarus* post-initiative phase
- Research Projects
 - VII projects (UCAR & Mitretek)
 - CCTV project (MIT/LL)
 - Phased Array Radar requirements development



Review of Clarus ICC #1

- September 2004 at University of Oklahoma
- Over 60 Participants
- Validation on approach towards developing Concept of Operations
- Validation on management of the ICC
- Identification and launch of task forces



Review of Clarus ICC #2

- March 2005 in Las Vegas
- Over 100 participants
- Validated the user scenarios of the Concept of Operations
- Input led to completion of the Concept of Operations



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About ICC #3



Three Terms to Remember...

- ***Clarus System***

- Tools for sharing surface weather observations and relevant surface transportation conditions

- ***Clarus Program***

- Operations and maintenance functions and personnel needed to sustain the *Clarus System*

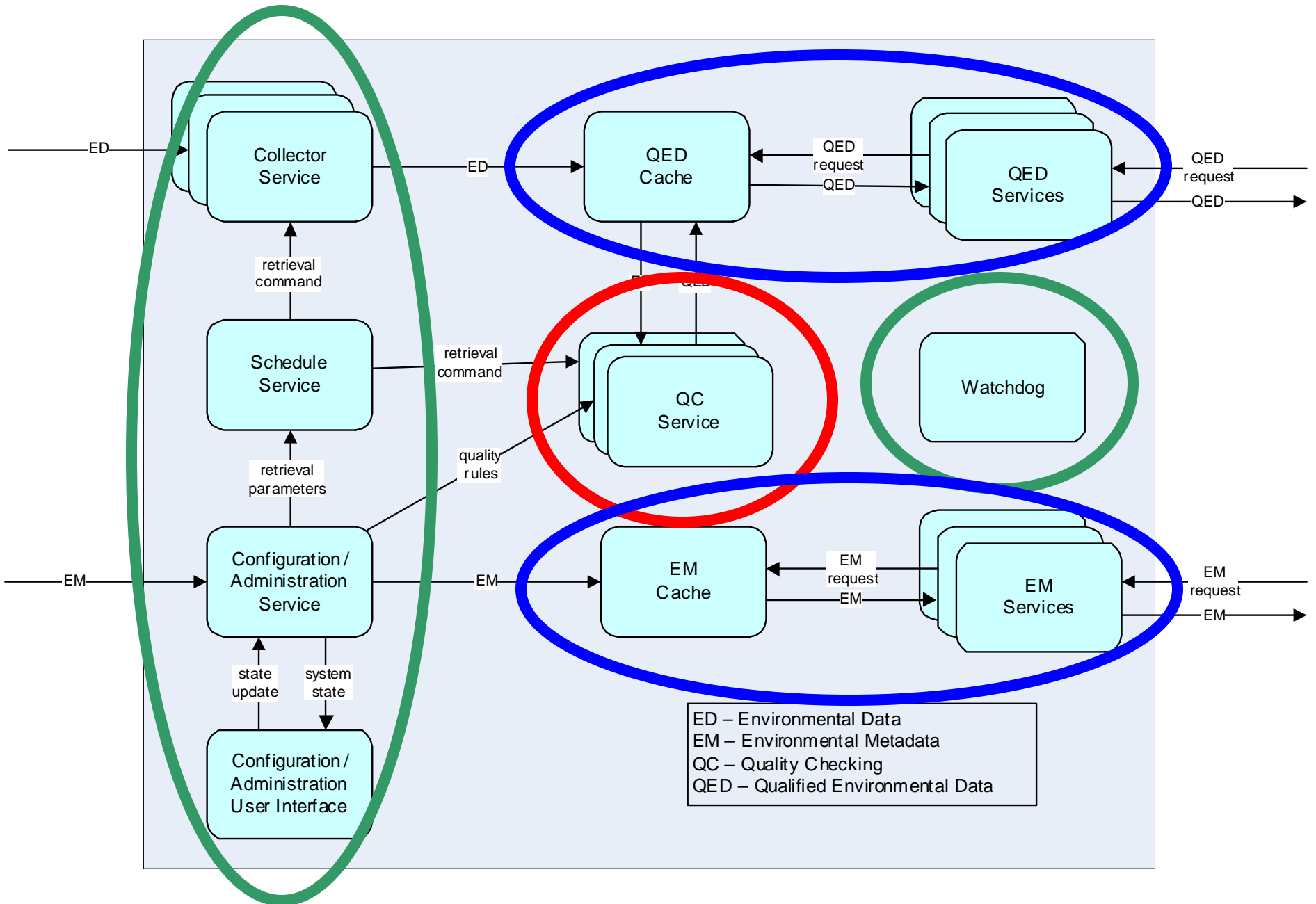
- ***Clarus Initiative***

- Development of tools, models, decision support that leverage the *Clarus System*
- End-to-End processes spanning data gathering to road weather information products & services
- Research activities that support creation of road weather information products & services



Objectives for this Meeting

- Validating the Detailed Requirements for the *Clarus* System Design
- Progress update to the ICC Members about on-going activities
- Discussion on next steps





Additional Information

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