

Leveraging AI Systems to Support Traffic Incident Response and Performance Monitoring

Concept to Implementation

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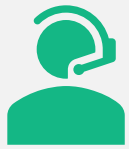
Gap in Communication

Emergency 911 CAD systems do not provide real-time alerts to partner agencies:

- ALDOT
- ALEA
- EMA



Current Notification System in North Region



Eg11 enters traffic incident call into CAD system

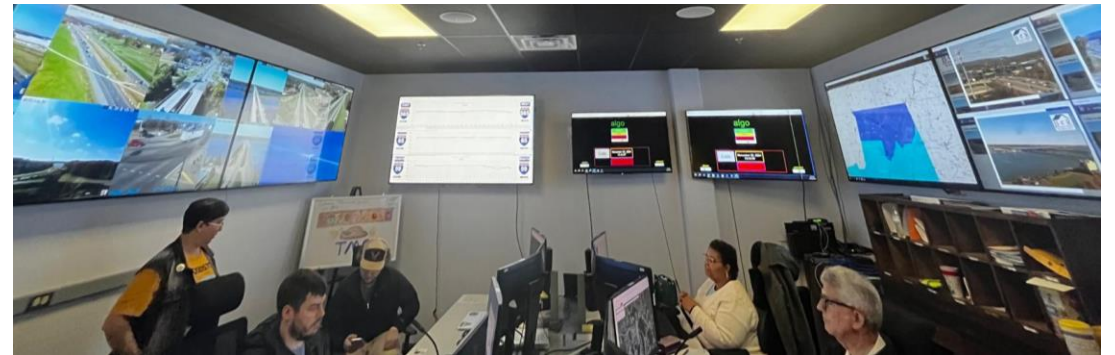


Some systems are capable of sending:

Text
Email



North Alabama Region TMC



Closing the Gap

Benefits

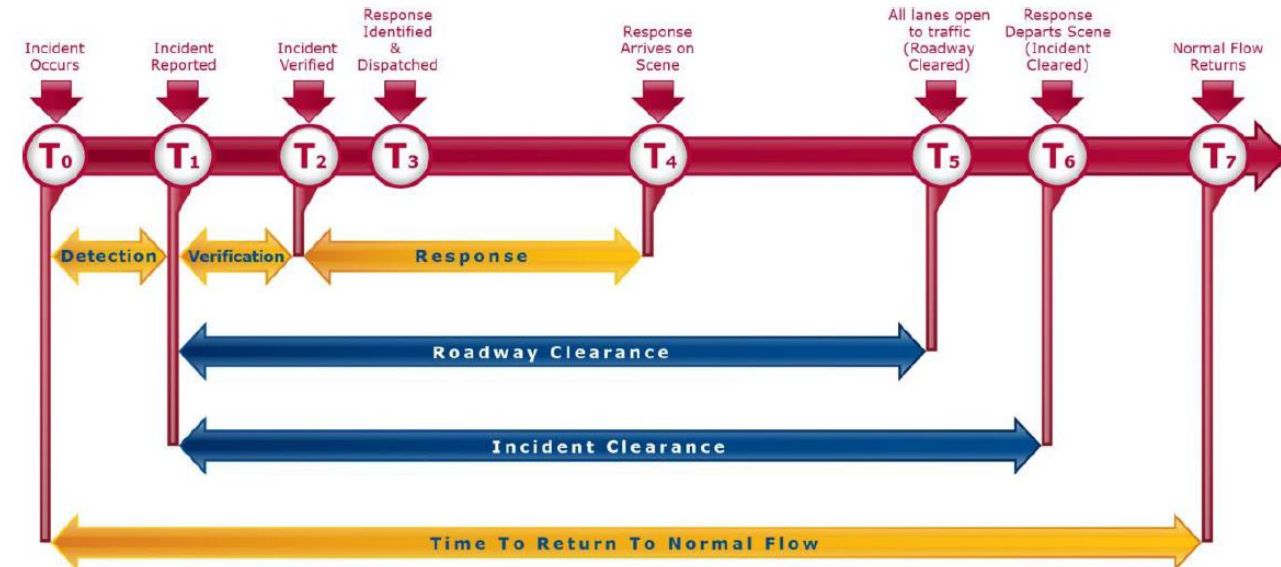
- Improved traffic safety.
- Enhanced operational efficiency.
- Travel delay cost savings.
- Accuracy in performance measurement.
- Foundation for future AI applications in TMCs.



Real-time alert system



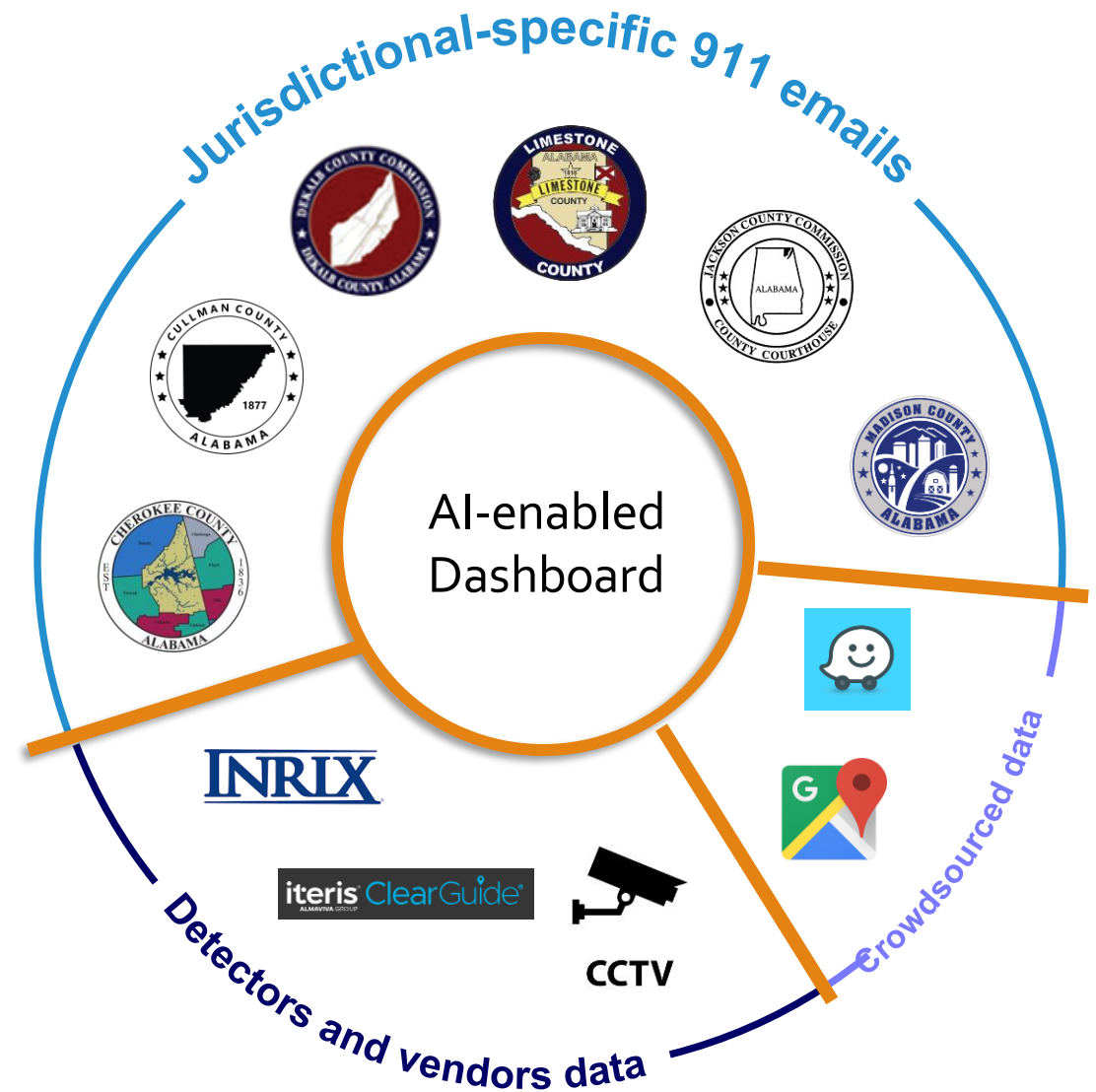
Documents incident milestones on the TIM timeline



Traffic Incident Timeline (Source: FHWA)

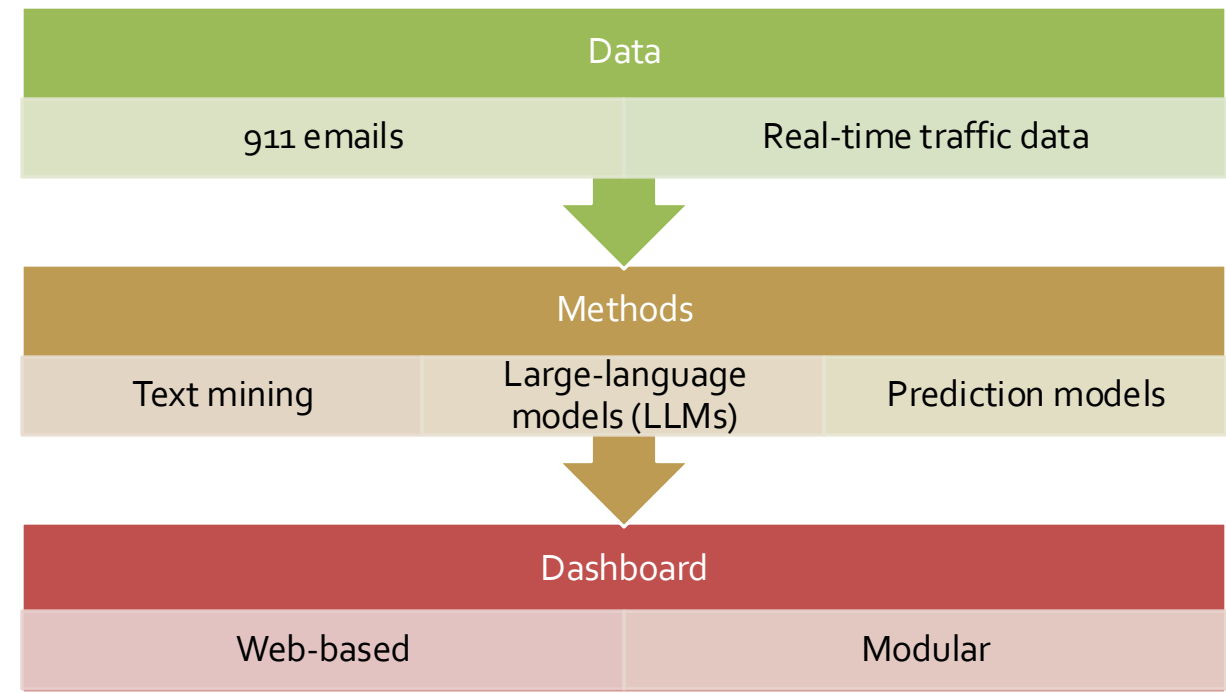
Project Objectives & Approach

- Explore and develop an AI-based system.
- Design a dashboard to disseminate information to responders.
- Collect the information for performance measurement.
- Conduct a pilot study and validate the developed tools.



Activities & Funding

- Task 1: Literature review.
- Task 2: Development of research approach.
- Task 3: Data collection, infrastructure preparation, and framework design.
- Task 4: Developing the AI system for incident response dashboard.
- Task 5: Pilot study for system integration and evaluation.
- Task 6: Final report and closeout meeting.

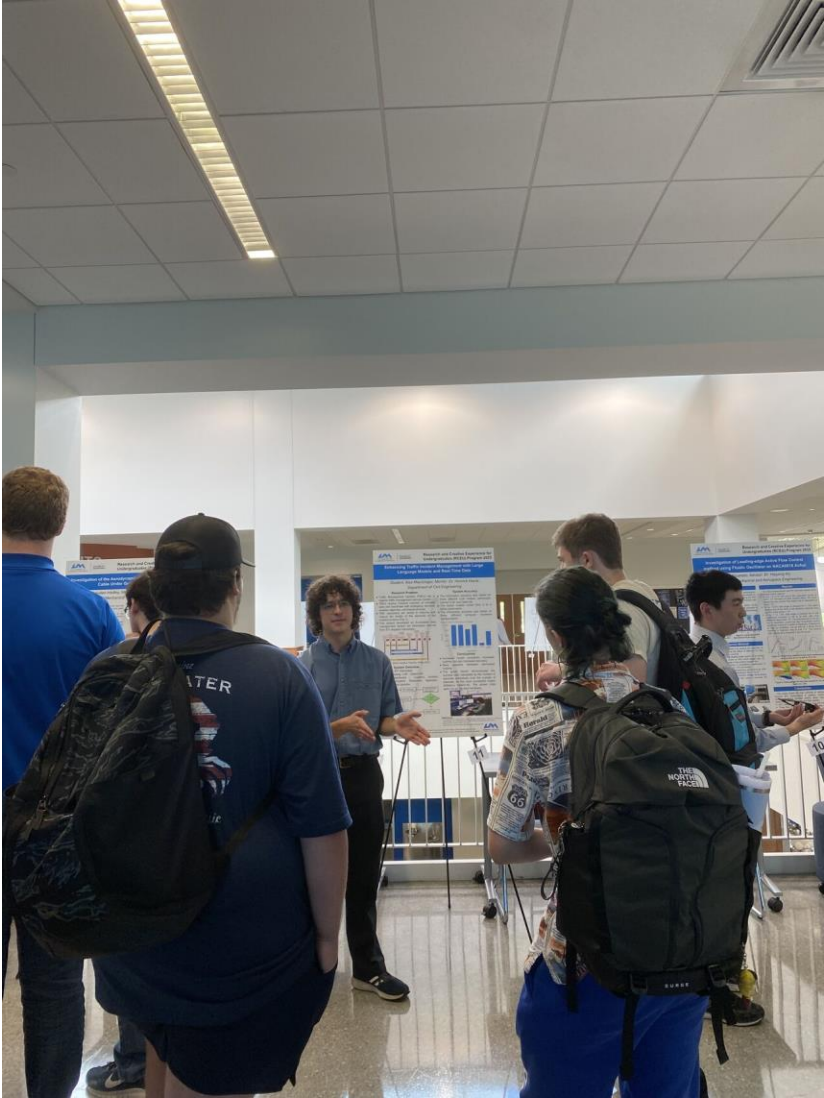
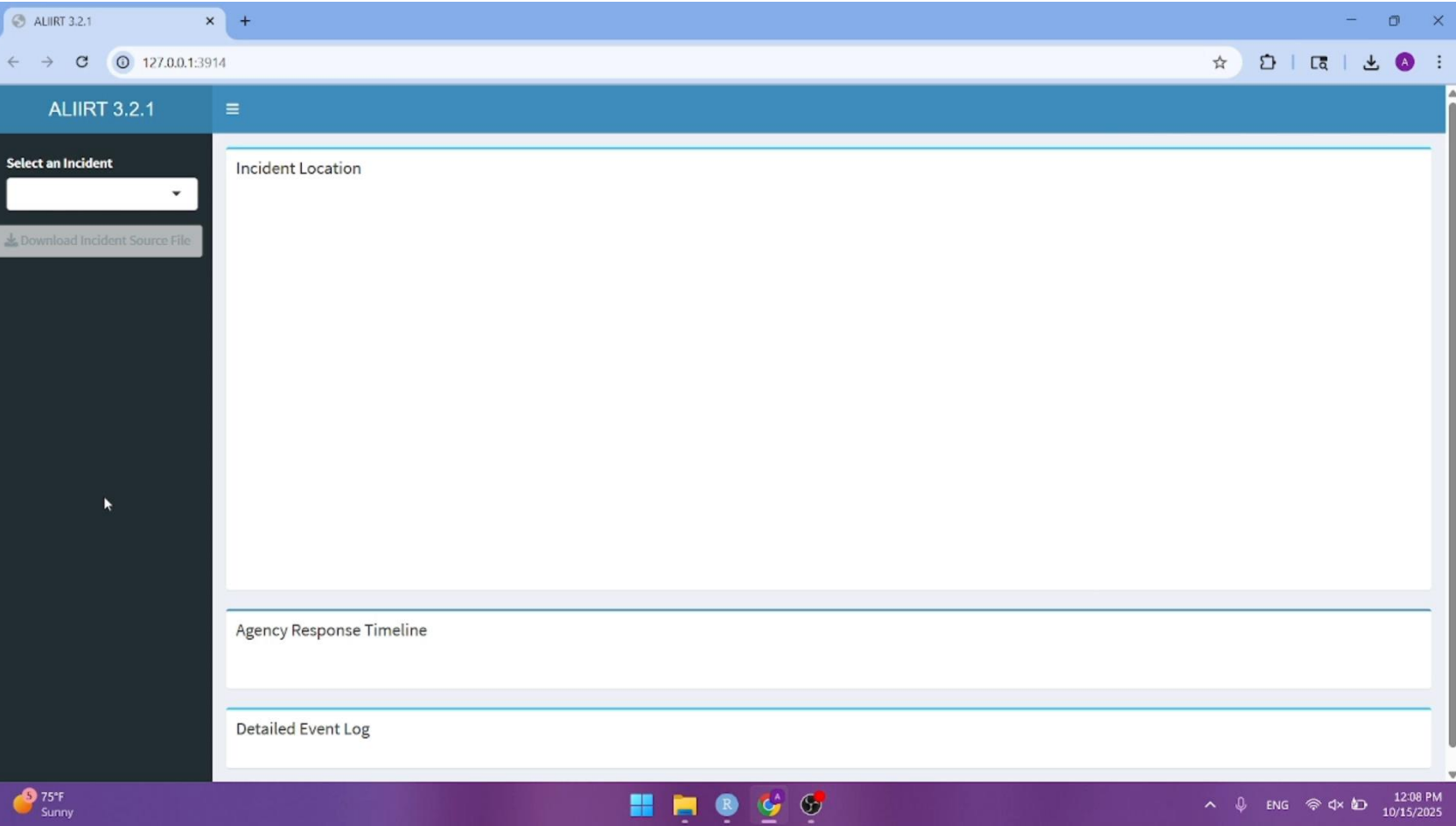


ALDOT R&D GRANT
APPLICATION



OTHER FEDERAL GRANTS
WHERE AVAILABLE

Demo of Initial Efforts



Thank you!

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