Advanced Transportation Management System

Robert T. White/Joshua Schultz
Maintenance and Operations Bureau

Overview

New transportation management system (TMS) shared by VTrans, ME and NH DOT's (Tri-State) that feeds information into a new traveler information system (TIS/511) for all of New England. Figure 1 shows the Tri-State Vision and ATMS modular software architecture.

Tri-State Vision II

- Common TMS/TIS Procurement
  - Economies of Scale
  - Streamlined TMS/TIS Integration
  - Common TIS Platform
- Future Integration Opportunities
  - Geographic Expansion (More States)
  - Situational Awareness
  - Device Control

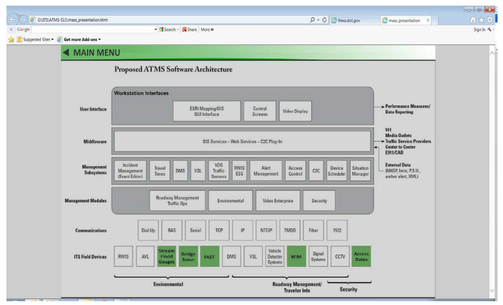
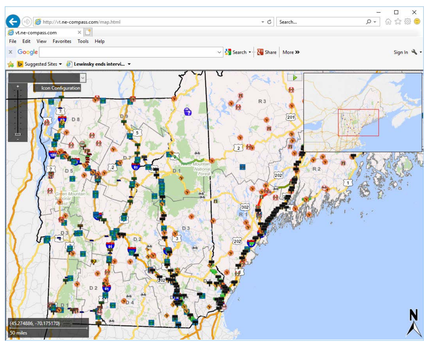


Figure 1. Tri-State Vision and ATMS Software Architecture.

Advanced Transportation Management System (ATMS)

A modular based ATMS that monitors and controls all Intelligent Transportation Systems (ITS) field devices. ATMS provides automated incident response scenarios that streamline detection, notification and verification of incidents across Tri-State. Figure 2 shows Tri-State ATMS internal administrative screen and the 511 pubic facing screen.



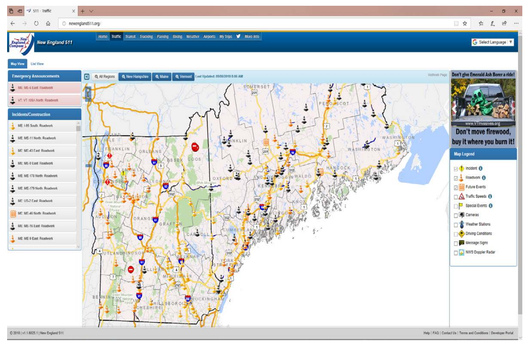
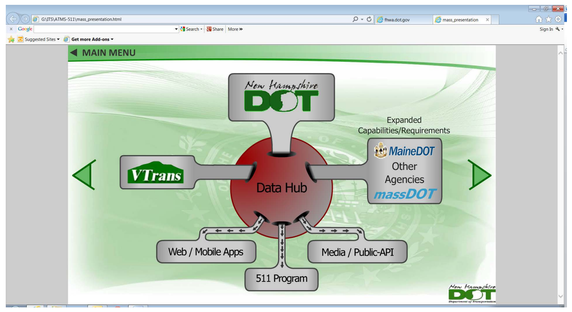


Figure 2. ATMS Internal Admin and 511 Public Facing Screens.

ATMS Data Hub and Regional Integrated Transportation Information System (RITIS)

The core of the ATMS is it its Data Fusion Hub. The Data Hub facilitates the exchange of information between the ATMS, the TIS, and national, regional, and local partners and stakeholders. RITIS developed by the University of Maryland is an automated data sharing, dissemination, and archiving system that includes many performance measure, dashboard, and visual analytics tools that can help Tri-State gain situational awareness, measure performance, and communicate information between agencies to the public. Figure 3 shows the ATMS Data Hub and an overview of RITIS.



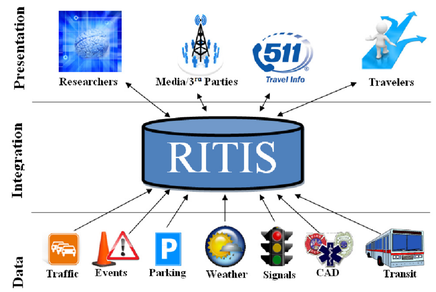


Figure 3. ATMS Data Hub and Integration with RITIS.

Conclusion

As VTrans and Tri-State continue to deploy ITS devices and as the demand for up to date traveler information increases, the ATMS in conjunction with RITIS has become an integral component for keeping up information super highway.

Acknowledgments

ATMS was a culmination of taking the best of existing systems (FL Sunguide, TX LoneStar and San Francisco Bay Area 511 and combining those with Tri-State's requirements.

References

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