Policy Primer

POLICY BRIEF

Janice Mak

Paola Moreno-Roman

Yakaira Núñez

Carolina Ramôa

Susanne Tedrick

To learn more about this project, please visit **aspenpolicyacademy.org.**

aspen institute

Proposal to Centralize Utah's Traffic Data for AI Driven Traffic Management

The Office of Artificial Intelligence Policy (OAIP) should sponsor a pilot project to evaluate how Utah's existing traffic technologies function together at a single intersection, with the goal of moving the state toward centralizing data for AI driven traffic management.

EXECUTIVE SUMMARY

Although Utah has deployed a range of traffic management technologies to address growing congestion in key metropolitan areas, there is no coordination of the traffic technology vendors. As a result, the state may be missing opportunities to improve performance, reduce redundancies, and scale AI enabled solutions effectively.

This pilot would help OAIP assess data interoperability, operational overlap, and alignment with privacy regulations. Moreover, it would offer OAIP a practical short-term opportunity to clarify system-level readiness for AI deployment and identify areas for improved coordination. The findings would inform future guidance and policy discussions on traffic data governance, vendor integration, and responsible AI use across the transportation sector.

BACKGROUND

Utah has invested in traffic technologies to manage congestion, particularly in the Salt Lake City and Provo-Orem metropolitan areas, where regional growth and shifting travel patterns have contributed to increased traffic volumes. These patterns have been influenced by factors such as suburban development, return-to-office mandates, and rising commercial and freight activity driven by online retail and warehouse distribution hubs. [1] The Utah Department of Transportation

[1] David Schrank, Luke Albert, Kartikeya Jha, and Bill Eisele, "2023 Urban Mobility Report," Texas A&M Transportation Institute, Mobility Division, accessed on April 9, 2025, mobility.tamu.edu/umr/.

(UDOT) which manages the procurement of traffic management technologies, has deployed technologies such as light detection and ranging (LiDAR) sensors, adaptive signals, and real-time analytics tools. Working together, these technologies can detect and classify nearby objects with high accuracy, allowing for precise tracking of vehicles and pedestrians at intersections.[2]

UDOT has partnered with several technology vendors to support the deployment of these traffic technologies. Econolite provides signal control equipment, and Ouster supplies LiDAR sensors that generate real-time spatial data. Seoul Robotics and Blue-Band offer software that processes LiDAR inputs to track traffic behavior. Iteris contributes statewide traffic data using GPS signals from moving vehicles. While these technologies are installed at intersections across the state, they are not part of a coherent system. In some cases, different combinations of technologies are used in other locations, operating independently.

These systems are operated across multiple vendors and platforms, and they are not currently part of any shared data or governance framework. As a result, they function independently, with no centralized mechanism to evaluate how data are collected, managed, or used across the systems. Additionally, questions remain about how these systems align with privacy requirements and procurement practices. [3] This fragmented landscape makes it challenging to assess interoperability, determine whether the technologies are generating overlapping or redundant data, and evaluate the conditions under which AI tools might be applied at scale. Our pilot would address these challenges, with the goal of coordinating and expanding the use of AI in future traffic management efforts. Many cities across the globe, while transforming to smart cities, have experienced similar data challenges. Capitalizing on their learnings, we propose a pilot project to address these challenges and to focus on optiming and governing the use of AI in traffic management. [4]

RECOMMENDATION

We recommend that OAIP sponsor a pilot project to evaluate how existing traffic management systems function when assessed in a centralized, coordinated environment, focusing on a single intersection or corridor. This pilot assessment would provide insights into current conditions for AI integration, including data interoperability, governance models, and legal alignment. The findings would support future policy development, regulatory sandbox planning, and interagency coordination related to AI use in transportation and other domains.

---

2 Jeongwoo Son, "Revolutionizing U.S. Traffic: Seoul Robotics Launches First LiDAR-Controlled Intersection in Utah," Seoul Robotics, accessed on April 9, 2025, https://seoulrobotics.tech/blog/revolutionizing-us-traffic-seoul-robotics-launches-first-lidar-con-trolled-intersection-in-utah.

3 Zhanbo Sun, Bin Zan, Jeff (Xuegang) Ban, Marco Gruteser, and Peng Hao, "Evaluation of Privacy Preserving Algorithms Using Traffic Knowledge Based Adversary Models," in Proceedings of the 14th International IEEE Conference on Intelligent Transportation Systems (Washington, DC: IEEE, 2011), 1075–1082.

4 Organisation for Economic Co-operation and Development (OECD), Smart City Data Governance: Challenges and the Way Forward (Paris: OECD Publishing, 2023), https://doi.org/10.1787/e57ce301-en.

We also recommend that OAIP engage a subject matter expert (SME) with experience and expertise in transportation systems, public sector technology evaluation, AI readiness, and data governance to conduct the pilot assessment. The SME would document the current landscape of AI integration. The assessment would document how deployed systems operate in practice, including mapping the architecture of sensors, controllers, and analytics platforms, and identify how data are collected, transmitted, and used. The assessment would also identify opportunities for further AI integration by (1) examining whether data are being duplicated across vendors, (2) analyzing variations in data latency and format, and (3) evaluating the extent of system interoperability.

Stakeholder interviews would be conducted with UDOT's central and regional teams, vendor technical leads, and OAIP staff. Taken as a whole, the pilot assessment findings would provide useful information to future AI in transportation initiatives around policy development and interagency coordination. The review would also evaluate how current data practices align with legal requirements under Utah's Consumer Privacy Act and Artificial Intelligence Policy Act, including access controls, data-sharing protocols, and transparency mechanisms for AI enabled use cases.

The SME would produce a short technical report summarizing the findings of the assessment, inclu a system architecture map, identified technical or operational gaps, and options for improving coordi or governance. The report would be prepared for internal use by OAIP, UDOT, and other state stakeholders to inform future decision making.

The proposed engagement would require approximately 80 to 100 hours over 4 to 6 weeks and would not involve any new hardware installation or system modification. The projected cost is $20,000, based on prevailing market rates for independent public sector technology consultants. OAIP's primary role would be to coordinate engagemen logistics, facilitate access to relevant stakeholders, and ensure that findings are synthesized to support future governance or sandbox discussions. Several Utah based independent consulting firms—including Horrocks Engineers, Hales Engineering, O'Neill & Company, and Kimley-Horn—possess the technical expertise and local experience to support this work. To ensure success, the pilot would benefit from clear access to documentatio from existing vendors and active collaboration with UDOT's operations teams.

CONCLUSION

OAIP has a unique opportunity to transform Utah's approach to traffic management by building on the state's existing investments in advanced technologies. **We recommend a time limited pilot project centered on an assessment at a single site with a limited scope, modest cost, and reliance on existing deployments that match OAIP's AI Learning Lab framework.**

See the Operational Plan for a proposed approach to developing the pilot project.

Policy Primer

POLICY BRIEF

ABOUT THE ASPEN POLICY ACADEMY

The Aspen Institute's Policy Academy helps community leaders and experts across the political spectrum elevate their voices, influence key decisions, and strengthen democracy from the ground up. Our innovative training programs and resources equip people across sectors – from tech to the environment, science to civic engagement – with the skills to shape critical policy efforts. Learn more at aspenpolicyacademy.org.