

TSMO and ITS Architectures

An ITS architecture is a framework that describes inherently complex transportation technology and systems. ITS architectures are focused on connections and data that flows over those connections between elements or systems that are integrated into an overarching system that aims to improve transportation operations. It takes into account existing resources to effectively meet current transportation needs as well as potential future improvements to the system.

USES OF THE ITS ARCHITECTURE

An ITS architecture can be used to support several processes within a transportation agency. Most of these processes support transportation systems management and operations (TSMO). The following are some of the uses of an ITS architecture that supports TSMO.

- **Provide input to objectives developed for a TSMO program plan.** User or stakeholder needs are identified in the development of an ITS architectures. These needs can be used to inform the development of TSMO objectives.
- **Review inventory for input to the TSMO plan** (especially the tactical element or implementation plan)
- **Identify ITS standards**
- **Review architecture to identify potential strategies** to be considered in the plan
- **Identify performance measures** based on the architecture
- **Consider projects in the architecture** for potential projects to consider in the plan

ITS ARCHITECTURE TO SUPPORT TSMO PLANNING

The ITS architecture can support developing TSMO plans. In addition to the uses of the architecture listed above, the ITS architecture can be used to:

- **Identify needs** from the ITS architecture as input to TSMO objectives in the TSMO plan.
- **Consider the ITS architecture inventory, service packages, and projects** for input into the TSMO plan, especially in the tactical element or implementation plan

USE OF TSMO PLANS FOR DEVELOPING OR UPDATING AN ITS ARCHITECTURE

- Similar to how the ITS architecture can support planning, TSMO plans can be used to support ITS architecture development or updating.
- Using the **stakeholders** included in the planning process as a beginning point to identify stakeholders to be included in the ITS architecture
- Using the **tactical elements** of the TSMO plan to include in the projects portion of the ITS architecture.
- Including the **goals and objectives** from the TSMO plan in the ITS architecture
- Including **performance measures** identified in the plan in the ITS architecture