INTELLIGENT TRANSPORTATION SYSTEMS ARCHITECTURE MAINTENANCE PLAN

November 2025

DOCUMENT OVERVIEW

INTRODUCTION

The Wichita Area Metropolitan Planning Organization (WAMPO) Intelligent Transportation Systems (ITS) Regional Architecture defines a vision for ITS implementation at the time it was developed and is considered a living document. Needs change with growth, and as technology progresses. Shifts in regional needs and focus, including the Metropolitan Transportation Plan (MTP) and other regional transportation plans, as well as changes in the National ITS Architecture will necessitate updates to the regional ITS Architecture. Also, if ITS projects do not conform with the region's architecture, it may be necessary to modify the architecture rather than modify the project. This ITS Architecture Maintenance Plan addresses the following key details:

- Roles and responsibilities
- Maintenance elements
- Maintenance schedule
- Identification of changes
- Conformity checks
- Change Management Process

ROLES AND RESPONSIBILITIES

While the Regional ITS Architecture is used by all stakeholders in the region, WAMPO is responsible for the Architecture itself, including maintaining, updating, and managing changes outlined later in this plan. As "owner" of the architecture, WAMPO is committed to:

- Consistent communication with stakeholders on developments in ITS throughout the region.
- Execution of the change management process to maintain the integrity of the architecture.
- Trained staff in maintenance and expertise in ITS Architecture files and software.

WAMPO region stakeholders are responsible for ensuring conformity with the ITS Architecture during planning and design of ITS projects. When necessary, a stakeholder will follow the change management process to help update the architecture.

MAINTENANCE ELEMENTS

The elements of the Regional ITS Architecture to be maintained are:

Description of Region – This description includes the geographic scope and functional scope. Geographic scope is the WAMPO region and the ITS elements within the region. Additional ITS elements outside the region may be necessary to describe if they communicate ITS information to elements inside the region. Functional scope defines the services that are included in Regional ITS Architecture.

List of Stakeholders – Stakeholders include those who have a role or responsibility and are critical to the definition of the Architecture. Within a region, the stakeholders may consolidate or separate into multiple distinct stakeholders. Such changes should be reflected in the

Architecture. In addition, Stakeholders that have not been engaged in previous Architecture efforts might be approached through outreach to ensure that the Regional ITS Architecture represents their ITS needs.

Operational Concept – The operational concept, which is represented as roles and responsibilities in the Regional ITS Architecture, accurately represent the consensus vision of how the stakeholders will operate ITS for the benefit of transportation users. The Operational Concept should be reviewed and, if necessary, changed to represent the deployed ITS and its impact on Stakeholders' operations.

ITS Inventory – Changes in stakeholders as well as the Operational Concept or deployment projects may impact the inventory. Specifically, ownership of inventory may change, and as a stakeholder's role changes, so may the specific functions of an ITS device.

List of Agreements – Identifying where information crosses agency boundaries and information sharing may indicate a need for interagency agreements. An update to the list of agreements can follow an update to the Operational Concepts and/or interfaces between elements.

Interfaces between Elements (interconnects and information flows) – Within an ITS Architecture, data flows are documented through a series of illustrations that allow the user to understand how elements connect with services in the WAMPO region. These data flows are critical to understand as they reveal how the removal of one element affects the operation of services, other elements, and the stakeholders responsible for each.

Functional Requirements – High-level functions are allocated to ITS elements as part of the Regional ITS Architecture. These can serve as a starting point for the functional definition of projects that map to portions of the Regional ITS Architecture. Functional requirements may need to be updated when projects change status, scope, or when existing systems are interfaced with new systems.

Applicable ITS Standards – ITS standards depend on the information exchange requirements. The maintenance process should consider how ITS standards may change and consider how any change in the national standards may impact previous regional choices.

Project Sequencing – Project sequences are the result of local policy decisions. Project sequences should be reviewed to make sure that they are in line with current policy decisions.

MAINTENANCE SCHEDULE

WAMPO will conduct an annual review and update of the region architecture that will cover all change requests, as well as adaptations to the national architecture that might include updates to the RAD-IT platform. These changes will predominantly be minor in nature but allow continuity and consistency in reviews. Larger updates will occur congruently with other transportation planning updates like the MTP or ITS Strategic Deployment Plan that are connected to funding programs. The frequency of these large

in-depth updates should not span longer than a 5-year time frame. They will also act as an audit, through active stakeholder engagement, of all maintained elements within the architecture.

IDENTIFICATION OF CHANGES

The following scenarios warrant a check for updates to the architecture:

Changes to deployment project definition – As technology advances, project definitions can change during planning and design. Changes in the definition can lead to an update of the architecture to make sure it reflects deployments.

Additions or deletions of projects – If projects are represented within the architecture, then presumed updates are already reflected within elements like data flows. If the project never happens then those data flows need to be corrected as necessary.

Project status – As projects are completed and deployments are implemented; status of elements should be updated to reflect within the architecture. Similarly, if there is a delay, sequencing of deployments may need to be addressed.

Stakeholder changes – Stakeholders can change with agreements, boundaries, or other naturally occurring changes to reality that should be reflected within the architecture.

Changes in regional needs – Change is inevitable especially with technology. This regional architecture was developed with most stakeholders input, however additional or new stakeholders may appear over time that change the needs of the region.

CONFORMITY CHECKS

Projects already listed within the region ITS architecture have been determined to conform with the architecture. If a project is not listed, the following steps should be taken to ensure conformity:

Step 1 – Identify the ITS Components

ITS components can be fairly apparent in an ITS focused project such as Closed Circuit Television (CCTV) or Dynamic Message Signs (DMS) deployments but could also be included in other types of projects where they are not as apparent. For example, an arterial widening project could include the installation of signal system interconnect, signal upgrades, and the incorporation of the signals within the project limits into a city's closed loop signal system. These are all ITS functions that involve ITS components, and they should be included in the ITS Architecture.

Step 2 – Identify the Corresponding Service Packages

Identify ITS service packages within the architecture. If the package does not exist, either the project or the Architecture will have to be modified.

Step 3 – Identify the Component within the Service Package

Once the element is located in the appropriate service package, determine if the element name is accurate or needs to be changed.

Step 4 – Evaluate the Connections and Flows

The connections and information flows documented in the service package diagrams are selected based on the information available when the Regional ITS Architecture was developed. As the projects are designed, decisions will be made on the system layout that might differ from what is shown in the service package. These changes in the project should be documented in the ITS service packages.

Step 5 – Document Required Changes

If any changes are needed to accommodate the project under review, the maintenance plan describes how those changes should be documented. Any changes will be incorporated during the next Regional ITS Architecture update. Conformance will be accomplished by documenting how the service package(s) should be modified so that the connections and information flows are consistent with the project.

CHANGE MANAGEMENT PROCESS

With any identification of change, conformity check, project changes, etc. the following process will be used while updating the Architecture.

Identify – WAMPO stakeholders can identify a change need in the regional architecture. A Change Request Form should be submitted with all pertinent information to WAMPO for consideration. A sample form can be found in Appendix A.

All Change Request Forms will be kept by WAMPO in a log that includes tracking of the status of the request through the rest of this process. This log of requests will be accumulated and included in submissions to FHWA or other agencies.

Evaluate – Change requests will be evaluated to determine what impact it has upon the regional architecture. Impacts will be shared with affected stakeholders for input and approval to confirm their agreement with the modification. When changes are large enough or the architecture undergoes a full update, stakeholder meetings may be conducted while evaluating change requests.

Approval and update – Each change request will be approved or denied. When approved, the architecture will be updated. WAMPO will check the results for consistency or conformity issues that may result.

Notify Stakeholders – The final part of the maintenance process is to notify stakeholders of the changes or updates to the Architecture.

APPENDIX A – CHANGE REQUEST FORM

	WAMPO Regional ITS Architecture Change Request Form			
Date		**Tracking No. (from WAMPO)**		
Stakeholder Proposing Change	Name		Title	
	Agency			
	Email		Phone No.	
Description of Change	Title	*Short Description (up to 25 characters)*		
	Detailed Description	*(What is to be added, deleted or modified? Attach additional documentation, including a project architecture, as necessary)*		
	Type of Change	☐ New Project/System ☐ Deleted Project/System ☐ Modified Project/System	☐ New/Changed Stakeholder ☐ Change in Project Status ☐ Change in Project Priority ☐ Other	
	Systems or Projects	*Name of System(s) or Project(s) being implemented or modified (if applicable)*		
Project Status	☐ Proposed (funding not yet secured) ☐ Planned (funding secured) ☐ Under Construction (stakeholder is currently deploying system/project) ☐ Existing			
Maintenance Team Comments				
Maintenance Team Action	☐ Approve ☐ Reject ☐ Deferred Until _____			
Additional Notes (submit additional pages if necessary				