Improving Transportation Systems Management & Operations:

A Capability Maturity Workshop
with the Kansas Department of Transportation (KDOT) and Wichita Regional Stakeholders
April 1-2, 2014

This memo provides a summary of the Senior Leadership meeting and day-long Capability Maturity Self Assessment Workshop conducted on April 1 and 2 in Topeka and Wichita, Kansas.

The purpose of the Workshop was to develop a consensus evaluation of the state of play and promising next steps in advancing the effectiveness of the statewide TSM&O efforts. The Workshop participants identified the current levels of capability regarding key processes, organization, staff and collaboration issues that may assist the region in defining the priorities among an array of possible actions to improve regional TSM&O efforts. This material will provide the foundation for the state's Implementation Plan.

There are five parts to this technical memo as detailed here:

1. An Inventory of TSM&O-related plans, programs, organization arrangements, and other materials used as background information for conducting the Workshop (as available).

2. A summary of the discussion points from the senior leadership meeting.

3. The output from the Capability Maturity workshop. The tables provide a summary of the consensus issues and views of the participants in the Workshop regarding current level of capability and key improvement actions to get to the next level. The articulation of these views and comments are documented as brief bulleted points as they were made by participants, without interpretation by the facilitation team. These summary tables identify the key actions needed to improve TSM&O within KDOT and among its partners in the Wichita area. It will be used as the basis for the Implementation Plan process.

4. The agreed upon timeline for next steps in developing the Implementation Plan.

5. The attendance listing for the workshop.

The workshop was facilitated by Erin Flanigan of Cambridge Systematics and Lisa Burgess of Kimley-Horn with assistance from Robert Campbell of Cambridge Systematics. The workshop was sponsored by FHWA and AASHTO. Further information on the concepts and guidance used in the workshop is available at http://www.aashtotsmoguidance.org/..

Background Inventory

Introduction
In preparation for the Capability Maturity Model (CMM) Self-Assessment Workshop, a formal inventory was made of the current state of play of TSM&O in the workshop regions. This inventory provided a basis for tailoring the workshop to the nature of KDOT's TSM&O programs and current status. The following sections summarize the topics and content of the background inventory that was provided to the workshop team by KDOT and by various publically available websites.

Organization
KDOT senior leadership is comprised of:

- Mike King, Secretary of Transportation
- Jerry Younger, Deputy Secretary and State Transportation Engineer
- Wade Wiebe, Director of Division of Partner Relations
- Barb Rankin, Chief Counsel
- Chris Herrick, Director of Planning and Development
- Kent Olson, Director of Division of Fiscal and Asset Management
- Catherine Patrick, Director of Operations
- Jim Kowach, Director of Engineering and Design

KDOT District 5 encompasses the South-Central area of Kansas, and includes 18 counties and the city of Wichita. It is organized into the following groups:

- Maintenance
- Administration
- Materials
- Construction
- Five Geographic Units

Wichita TMC and ATMS
The Wichita Advanced Transportation Management System (ATMS) enables real-time traffic management via field devices including cameras, sensors and dynamic message signs, which are all integrated with the MIST software for traffic management. The Wichita Transportation Management Center (TMC), located at the Sedgwick County Public Safety Center, is the focal point of the Wichita ATMS. Goals of the TMC are to improve traffic incident management (e.g., response and clearance times), transportation system efficiency (e.g., travel times and congestion), and public dissemination of traveler information (e.g., 511 and CCTV). The WICHway TMC was developed through a Concept of Operations and Systems Engineering process. KDOT provides funding for the ATMS. Operations are limited geographically to District 5 from a construction and maintenance standpoint, but traveler information is communicated to Salina, Topeka, KC Scout, Tulsa, Oklahoma City and other agencies and communities throughout the Midwest. Regional stakeholders involved in TSM&O include:

- KDOT
- Kansas Highway Patrol (KHP)
- Sedgwick County 911
- Sedgwick County Public Works
- Kansas Turnpike Authority (KTA)
- City of Wichita
- Wichita Area Metropolitan Planning Organization (WAMPO)
- Department of Public Safety (Emergency responders)

The TMC is operational from 6:00 a.m. to 7:00 p.m. daily from Monday to Friday, and is capable of continuous operation if required. Special events are considered on an individual basis and coverage can be adjusted accordingly. TMC workstations provide access to the following systems:

- CCTV
- Dynamic Message Signs (DMS), with detailed guidance regarding appropriate use provided in the Standard Operation Procedures Manual.
- RWIS (Road Weather Information System)
- Speed Detectors
- 911 Computer Aided Dispatch (CAD) – visibility only (separate monitor)
- Video Wall Control

WICHway is the branding of the ITS system that the TMC monitors, including a public-facing web site for information dissemination. It provides camera views, traffic speeds, electronic roadside messages plus traffic management center monitoring and interpreting of incidents and other problems on metro highways. WICHway also publishes an annual and monthly reports summarizing incident and congestion metrics.

Wichita Area Metropolitan Planning Organization (WAMPO)
WAMPO is the designated Metropolitan Planning Organization (MPO) for the greater Wichita metropolitan area. Its region includes all of Sedgwick County as well as portions of Butler and Sumner counties. It is responsible for the administration of federal transportation funds by approving various transportation improvements.

At WAMPO, the term "Operations" typically refers to maintenance effort, while "systems management" is used to refer to TSM&O activities. WAMPO has a Congestion Management Process (CMP) to identify congested areas and provide a toolbox of potential techniques for reducing congestion including travel demand management, public transportation enhancements, and traffic operation improvements. WAMPO also maintains the Wichita Area Regional ITS Architecture, providing a blueprint of how the transportation systems in the region will be interconnected through information sharing.

MOVE 2040 is WAMPO's long range transportation plan with a 25 year time horizon, with a 5-year update cycle. The *Regional Transportation Profile* published by WAMPO provides a snapshot of transportation facilities and statistics regarding their use. Additional details are provided in the *Existing Conditions & Needs Assessment* report. To identify what the public's transportation spending priorities were, WAMPO conducted a "Budget Bucks" exercise from October 2013 to January 2014, asking participants where they would like to see investments occur across several categories: air quality, alternate modes of travel, education, fixing bottlenecks, freight, maintaining the current system, safety, and technology.

2014 Transportation Improvement Plan
The latest WAMPO Transportation Improvement Plan (TIP), approved in September 2013, includes 93 projects including:

- 16 transit improvement projects
- 1 signalization improvement
- 4 targeted safety improvements (3 are at railroad crossings)
- 13 bridge improvements
- 3 interchange improvements
- 26 general roadway improvements

Traveler Information Systems
KanDrive (www.KanDrive.org) is the web-based statewide traveler information system which provides links to a state map (511.ksdot.gov) showing CCTV and DMS information, construction and road conditions and to the two metro area traveler information sites, KC Scout, and WICHway. KDOT also provides a 511 phone service.

WICHway.org provides Wichita-area specific traveler information and road conditions. It includes alerts and advisories for major incidents or weather events impacting roads, CCTV camera views, planned and active construction on Wichita freeways, and a color-coded map showing traffic flow conditions/current speeds on instrumented freeways in the Wichita area. Web users also can see which DMS signs are activated and what messages are being displayed.

Senior Leadership Meeting

April 1, 2014

Introduction

In conjunction with the Capability Maturity Model (CMM) Self-Assessment Workshop, a preliminary Senior Leadership Meeting was held on April 1. The purpose of the meeting was to ensure that leaders within the agency were familiar with the CMM workshop process and goals, to reaffirm their commitment and endorsement of the project, and to provide the workshop organizers with greater insight into key issues and relevant context specific to the agency and its affiliates.

The attendees were:

- **Kansas DOT:** Mike King, Jerry Younger, Chris Herrick, Catherine Patrick, Jim Kowach, Mike Floberg, Leslie Fowler, Tom Hein*, Glen Scott*, Benny Traverdi* (* via telephone)
- **Consultants:** Erin Flanigan (Cambridge Systematics), Lisa Burgess (Kimley-Horn), Robert Campbell (Cambridge Systematics)
- **FHWA:** Steve Clinger, Karen Gilbertson, Michael Bowen

The consultants provided an overview of the CMM process and the different dimensions that would be covered during the workshop. An informal discussion with agency leadership followed to explore areas of interest or concern. The points raised by those in attendance were used to provide additional direction for the workshop the next day, and to ensure that all priority issues related to policy, resource limitations, and organizational roles/responsibilities were addressed during the workshop discussions.

Recent and Planned Activities Discussed:

- A Freight Advisory Committee was recently established.
- SHRP2 incident management training has helped Wichita responders appreciate the need for improved incident management and the role that maintenance crews play.
- KDOT specific outcomes from a 2011 CMM workshop held for the Kansas City bi-state region that KDOT participated in included:
    - Initiated key conversations between KDOT and various partner agencies.
    - Helped KDOT identify its major strengths and weaknesses.
    - Prepared the agency for CMAQ funding applications.
    - Acted as a catalyst for better incident management in coordination with local law enforcement.
- Wichita has new transit leadership (Steve Spade), which may help introduce new/innovative ideas.
- KDOT envisions using the results from this 2014 workshop to promote change and improvement in the Wichita region.

Concerns and Challenges Expressed:

- KTA must be involved in KDOT's TSM&O discussions, as the two agencies share resources and have many common partner agencies and collaborators.
- There is uncertainty about TSM&O's role in freight operations. Because Wichita is a major decision point for northbound freight traffic, long-haul travel times north of Wichita may be a critical measure to provide to freight operators as they arrive to the city. A freight meeting was scheduled at the same time as the CMM workshop, so this limited those stakeholders' ability to participate in the CMM discussions.
- Transit should be part of the discussions at the workshop.
- KDOT has traditionally focused on highways and capacity expansion, and may not be giving enough attention to other transportation needs in the state (i.e., technology investments, communications infrastructure).
- Funding is a constant challenge for KDOT. In the Wichita area, many different agencies and organizations must compete for a limited pool of funds. Priorities for funding need clarification.

Business Processes: Planning and Programming

Workshop Outputs

Strengths Cited	Weaknesses Cited
• County has traffic operations guidelines, but no formalized policies (guidelines provide more flexibility in terms of compliance). • County, fire, and other agencies have participated in recent SHRP2 Traffic Incident Management (TIM) train-the-trainer (TtT) programs. • As part of the Move 2040 Plan process, the public has been polled to identify users' priorities regarding system investments. System preservation is one of the public's priorities, which implies expanding the system within maintenance means. • TIP is built from the bottom up, rather than top down. Local jurisdictions submit projects and ideas to the MPO and WAMPO prioritizes them for funding. • Current focus is on capacity-side improvements rather than on demand-side measures. • Many of the first responders (including all Wichita fire) have been trained through SHRP2 TIM TtT programs. • KDOT considers future ITS corridor plans when evaluating projects. • KDOT considers ITS by default as part of local improvement projects; local agencies typically do not, however. • KDOT has initiated an Incident Management Committee to coordinate training and communication among emergency responders.	• WAMPO should systematically pursue funding opportunities that are available. KDOT should pursue funding opportunities through WAMPO. • Benefit/cost tools for TSM&O are not being fully utilized to evaluate projects in the TIP or to promote additional TSM&O projects. • The city has conflicting mobility goals: efforts at encouraging alternative transportation modes are countered by efforts to improve freeway bottlenecks. • KHP and Wichita PD have responsibility over different facilities in Wichita. Better incident procedures are needed to reduce incident duration; collecting data and gathering information from the scene takes longer than it may need to (based on observations of other agencies). • CMAQ funds are not guaranteed to remain set aside for the projects that they were originally approved for; they can be reallocated to other areas after they have been secured. • The ITS program has dedicated ITS operations funds set up by Legislature.

Level	1 — Performed	2 — Managed	3 — Integrated	4 — Optimized
Criteria	Each jurisdiction doing its own thing according to individual priorities and capabilities	Consensus regional approach developed regarding TSM&O goals, deficiencies, B/C, networks, strategies and common priorities	Regional program integrated into jurisdictions' overall multimodal transportation plans with related staged program	TSM&O integrated into jurisdictions' multi-sectoral plans and programs, based on a formal, continuing planning processes
Consensus	1.5			

Workshop Actions to Advance to the Next Level
• Develop outreach materials for the public and elected officials about TSM&O—and the transportation system in general—as it relates to the *Move 2040* Transportation Plan, to inform their funding and initiative support decisions. Promote the application of the investment strategies of the *Move 2040* plan. • Pursue "Planning for Operations" workshops for Wichita agencies, to inform them about strategies for incorporating TSM&O into business processes. • Establish a committee that meets regularly to discuss TSM&O and to encourage dissemination of TSM&O knowledge. Develop goals for this committee and outline the issues it would undertake. Examine possible synergy with the WAMPO technical committee that meets once a month and explore the possibility of utilizing existing committees to expand TSM&O responsibilities and roles.

Systems and Technology

Workshop Outputs

Strengths Cited	Weaknesses Cited
• WAMPO recently updated (last year) the ITS architecture in collaboration with KDOT and other agencies. WICHway is working to implement the ITS architecture. • KDOT had an early ITS architecture that guided projects and gave direction in the past. Recently, updates to the KDOT architecture/plans have been incremental in nature. • Systems engineering processes are followed by default for new state projects, as this is a requirement for state projects that use federal funding. • KDOT and KTA have documented collaboration processes in formalized agreements. KTA and KDOT share procurement resources and utilize each other's processes when convenient. • Future interoperability is planned between Oklahoma and Kansas toll transponders. • Emergency responders have no interference/communication issues on their radio systems. WICHway and KHP have two-way communication ability during incident response, though the system is typically used by WICHway to monitor KHP field updates rather than to broadcast their own announcements. • Wichita and the county have interoperable systems that have matured in parallel.	• No specific WAMPO staff person or regional stakeholder group is dedicated to keeping the ITS architecture up-to-date; rather, it is updated on an ad-hoc, as-needed basis. • System engineering is followed for the majority of KDOT projects. The level of detail is dependent on the funding and scope of the project • The TMC has no direct control over city signals; the technology is available, but the operational procedure is not in place. Presently, a phone call to the city is required to request changes to city signals. • There is uncertainty about what technology has already been deployed throughout the region (e.g., the fiber connection between Wichita signals and the TMC). • KTA and KDOT have shared control of one DMS, but additional sharing of facilities would be ideal. • KTA procurement is constrained by the procedural requirement for board approval. • The KTA operations center is separate from the WICHway transportation management center. • Procedures for locating fiber in the field are not systematic and could be improved.

Level	1 — Performed	2 — Managed	3 — Integrated	4 — Optimized
Criteria	Ad hoc approaches to system implementation without consideration of systems engineering and appropriate procurement processes	Regional conops and architectures developed and documented with costs included; appropriate procurement process employed	Systems & technology standardized and integrated on a ***statewide*** basis (including arterial focus) with other related processes and training as appropriate	Architectures and technology routinely upgraded to improve performance; systems integration/interoperability maintained on continuing basis
Consensus		2		

Workshop Actions to Advance to the Next Level
• Expand the city's signal system communication technology into areas that do not currently have access to it (strategic county locations, etc). • Examine the current signal system technology to identify and address advancing the system as a whole. • Use the TAC (or an ITS subcommittee of it) for establishing signal communications systems linkages for coordination of operations between different communities on shared corridors. As a first step, put an action item on the committee's meeting agenda to bring the necessary parties together to initiate these coordination discussions. • Continue working toward the completion of the long-term ITS plan; fulfill ITS infrastructure and deployment goals.

Performance Measurement

Workshop Outputs

Strengths Cited	Weaknesses Cited
• Crash data are reported by first responders and are aggregated/archived by KDOT. Performance measures, including the number of incidents by type, are then calculated, published in a dashboard report, and delivered to districts for further distribution to counties. • Incident clearance times have been improved by KDOT-funded Freeway Service Patrol and the state's quick clearance laws. KHP provides comment cards to people who have been assisted by the Freeway Service Patrol, and uses this feedback to identify needs and strengths. • KHP informs KDOT when incidents will exceed a threshold duration, though this is an informal procedure. For major incidents, KHP and KDOT coordinate with regard to response, staffing, and disseminating information to the public. • WAMPO has investigated various performance measures and other system characteristics, including roadway expansion potential for the future. • WICHway performance reports are being regularly published, with the first report distributed in late 2013. • Major incidents have debriefings as needed, though there is no formal review criteria or procedure. • KDOT and MPOs have had initial discussions regarding collaboration on MAP21 performance measures, including obtaining the necessary data. These agencies will continue to establish more structured collaboration mechanisms as part of a series of planning meetings scheduled for Spring 2014.	• Overall incident impact measures (i.e., the time for the facility to recover to normal conditions) are not reported to KDOT and are not being tracked automatically. • Incident response times are not automatically tracked, and are reported only on an aggregate level. • Many performance measures are reported to satisfy funding requirements, and are not used for performance tracking and optimization. • Major traffic incidents/events do not motivate ITS conversations among state leaders and the public. • There is no formalized or systematic debriefing procedure for incidents. • MAP21 has limited influence on the performance measures used by WAMPO, largely because the measures for MAP21 have not been finalized yet. • Geocoded database of incident data lacks naming consistency causing less than useful database.

Level	1 — Performed	2 — Managed	3 — Integrated	4 — Optimized
Criteria	Some outputs measured and reported	Output data used directly for after-action debriefings and improvements; data easily available and dashboarded	Outcome measures identified (networks, modes, impacts) and routinely utilized for objective-based program improvements	Performance measures reported internally for utilization and externally for accountability and program justification
Consensus	1.5			

Workshop Actions to Advance to the Next Level
• Solicit performance measure feedback from other agencies; investigate what metrics are of interest, are being collected, or are being sought. Use the ITS technical advisory committee to identify the performance measures of interest to Wichita. • Initiate conversations between WAMPO and WICHway regarding performance measures for characterizing and tracking travel time reliability. • Initiate discussions between WAMPO and WICHway to select set of appropriate outcome measures. • Develop a consistent and intuitive geocoded database of incident data that can be geographically/spatially queried. Seek advice from the WAMPO safety coalition on how this issue has been addressed in the past. • Instruct data entry personnel on the applications of incident data further down the pipeline, so that they understand what needs to be preserved during the transcoding stage. Educate system users about the available data types and the limitations of that data.

Culture

Workshop Outputs

Strengths Cited	Weaknesses Cited
• KDOT planning has a "set-aside" funding stream for ITS. • The ITS steering committee is multi-disciplinary and has representation from each district and determines how the set-aside funding is allocated. • WAMPO staff has good working knowledge of TSM&O. • Champions help implement and motivate TSM&O projects. • Some design engineers have a good understanding of TSM&O and actively look for applications to projects; they tend to think of ITS as an integral part of design, similar to utility coordination and enhancement. • DMSs raise public awareness of TSM&O, and the public responds measurably to information communicated on DMSs.	• Funding can fluctuate by year and is not guaranteed in future operating budgets. The public and decision makers fail to recognize that ITS systems require ongoing maintenance and operations funding. • Various levels of management could benefit from a better understanding of TSM&O. • There is confusion within the agency regarding the term "operations." In most contexts, KDOT defines "operations" as maintenance and construction, whereas TSM&O would be "*traffic* operations." • Originally, district budgets included ITS operating budgets, but now they are consolidated. Districts are hesitant to allocate any funds to ITS projects, because they risk having those funds reassigned from the district to ITS in future years. • When TSM&O champions leave their positions, the overall maturity of TSM&O within the agency suffers and declines. Documented succession plans are not in place. • ITS is incorporated into KDOT projects through informal processes; staff members look at projects and attempt to identify TSM&O applications, but have no formal procedure to guide them. • ITS has not permeated certain aspects of the agency culture because some positions do not deal directly with TSM&O (e.g., construction inspectors). • In some projects, TSM&O is treated as an afterthought rather than an initial consideration, making TSM&O strategies infeasible for many projects by the time they are considered. There is no systematic treatment of TSM&O in the project development process. • Local agencies are not accustomed to including TSM&O in their projects. • The public perceives the significance of some TSM&O programs (i.e., DMSs, camera images, and the WICHway website), but not others.

Level	1 — Performed	2 — Managed	3 — Integrated	4 — Optimized
Criteria	Individual Staff champions promote TSM&O	Jurisdictions' senior management understands TSM&O business case and educates decision makers/public	Jurisdictions' mission identifies TSM&O and benefits with formal program and achieves wide public visibility/understanding	Customer mobility service commitment accountability accepted as formal, top level core program of all jurisdictions
Consensus	1			

Workshop Actions to Advance to the Next Level
• Educate senior management about TSM&O and get them involved with TSM&O activities where possible. Promote the idea of corridor/network facility management (TSM&O)—rather than expansion alone—as a transportation solution. • Develop materials to establish the business case for TSM&O, and use these materials to promote TSM&O among senior management. Highlight safety impacts or benefits of TSM&O as part of the outreach materials. Include visuals and anecdotes, and support them with data and statistics. • Investigate TSM&O peer sharing opportunities between other states and Wichita region's TSM&O stakeholders. • Establish a TSM&O instructional initiative (e.g., TMC visits) to raise awareness among agency staffs. • Educate Wichita councilmembers on TSM&O. Organize site visits for decision-makers (similar to what WAMPO has done), to give them opportunities to learn about TSM&O and its potential benefits.

Organization and Staffing

Workshop Outputs

Strengths Cited	Weaknesses Cited
• WAMPO recently reorganized its board to more accurately reflect its constituents. KDOT holds two seats on this board. • WAMPO and the county are seeking to expand TSM&O knowledge and training throughout their agencies. • FSP staff retention is not a major issue in Wichita, although this is due to a lack of other opportunities to entice current staff away. • KDOT has the ability to contract out some ITS functions to consultants, which provides additional flexibility regarding staffing and funding.	• Wichita PD may have a reduced number of staff dedicated to traffic control and incident response due to budget constraints, which negatively impacts response times. When incidents occur on city facilities, they are added to the queue of items that officers must respond to, but traffic incidents are not placed at the top of the list. (Note: Wichita PD was not able to attend the workshop so this weakness is perceived by stakeholders) • The Wichita TMC is not staffed and operated 24 hours a day. Political leaders and the public expect 24-hour operation. • There are additional opportunities for Sedgwick County to collaborate with other agencies at the TMC, but the other agencies do not recognize these opportunities and therefore do not pursue them. • KHP does not have sufficient staff to monitor all freeway facilities in Wichita, which ultimately resulted in having Wichita PD patrol some of the freeway routes instead (US54/Kellogg). • The county has no CCTV or integrated signal systems. • Webinars are occasionally used to substitute for conventional training due to the lower costs associated with web-based training, but the sessions may run long and their effectiveness is highly variable. • FSP staff has largely been without raises for the last several years due to lack of funds. • WAMPO has lost some of the ITS expertise that it formerly had among its staff due to staff changes and attrition. • City of Wichita's engineers are overextended and overcommitted. As a result, traffic activities and actions tend to be reactive rather than proactive. • KHP is struggling to find applicants for its staff openings. • Emergency response teams have high turnover, and training of new staff is impacting productivity. • There is insufficient maintenance staff to manage the TSM&O systems that are currently being deployed or expanded. • Travel budgets do not allow staff to attend ITS Heartland events on a regular basis. These events provided good opportunities for training and peer networking. • Smaller jurisdictions do not have the ability to commit resources to TSM&O initiatives.

Level	1 — Performed	2 — Managed	3 — Integrated	4 — Optimized
Criteria	TSM&O added on to units within existing structure and staffing -- dependent on technical champions	TSM&O-specific organizational concept developed within/among jurisdictions with core capacity needs identified, collaboration takes place	TSM&O Managers have direct report to top management; Job specs, certification and training for core positions	TSM&O senior managers at equivalent level with other jurisdiction services and staff professionalized
Consensus	1			

Workshop Actions to Advance to the Next Level

- Select candidates for the Operations Academy training program.
- Invite people who have been through various training programs to provide instruction to larger audiences at local agencies. Extend similar invitations to staff who operate the Regional Operations Forum training.
- Identify and prioritize potential training opportunities for Wichita-area agencies (webinars, workshops, peer exchanges, etc)
- Develop a plan for expanded hours of operations at the TMC, and investigate what times of the year warrant 24-hour operations.
- Nominate two Wichita Regional TSM&O stakeholders (one from WICHway, one from WAMPO) to attend an upcoming ROF.

Collaboration

Workshop Outputs

Strengths Cited	Weaknesses Cited
• Coordination of maintenance efforts occurs between Wichita and the county. The city also coordinates with fire personnel and other agencies to address high-risk incident locations. • KDOT delegates operations of signalized intersections to the cities and the county. • Having several different agencies (KDOT, emergency responders, and local agency staff) located in a single TMC facility has led to improved incident detection times and better communication/coordination between agencies during incidents. • The Wichita TMC manages assist with statewide traffic operations (ITS device testing and posting messages) when Topeka staff have other commitments and need coverage. • KHP has access to roadway CCTV via public internet. • KTA and KDOT have collaborated on fiber connections. KDOT has leveraged KTA's relationship with other agencies to get additional fiber installed. • WICHway can be used for special event management, and information for such events is generally passed on to WICHway staff, though not in a systematic manner. • TSM&O consultants with KDOT are generally used as operations providers. KDOT has a contract with a maintenance contractor for ITS devices. • ITS Heartland organized a recently-approved $1 million project (MCOM, the Multi State Corridor Operations and Management Program) for creating a centralized traffic database across the five constituent Midwest states. The project also involves providing real time travel time information tothe public and commercial vehicles and establishing a clearinghouse of traveler information. KDOT is a partner agency. • A multi-agency incident management coalition is in place. • Major traffic diversions occur at the discretion of KHP and Wichita PD; there is a formal plan for traffic rerouting during major events or incidents, which includes coordination between the city and KDOT. • The KTA operations center includes representation by KHP.	• Collaboration between agencies occurs, but the relationships are not formalized. MOUs are project-based, not program based. Agency individuals know whom to contact at other organizations for various issues and functions, but these contacts are not formalized and documented—they are informally tracked by individuals who effectively hold the institutionalized knowledge of TSM&O (and relationships) for their respective agencies. • Many agency collaboration procedures are not formalized and documented, and when staff changes occur, there is a risk that these procedures will be lost or forgotten. • WICHway infrastructure is not being fully utilized during special events (e.g., parking information could be communicated via DMSs, but presently it is not). • There is limited collaboration with transit (though this is due to lack of interest by transit agencies), especially regarding incidents that may impact transit operations.

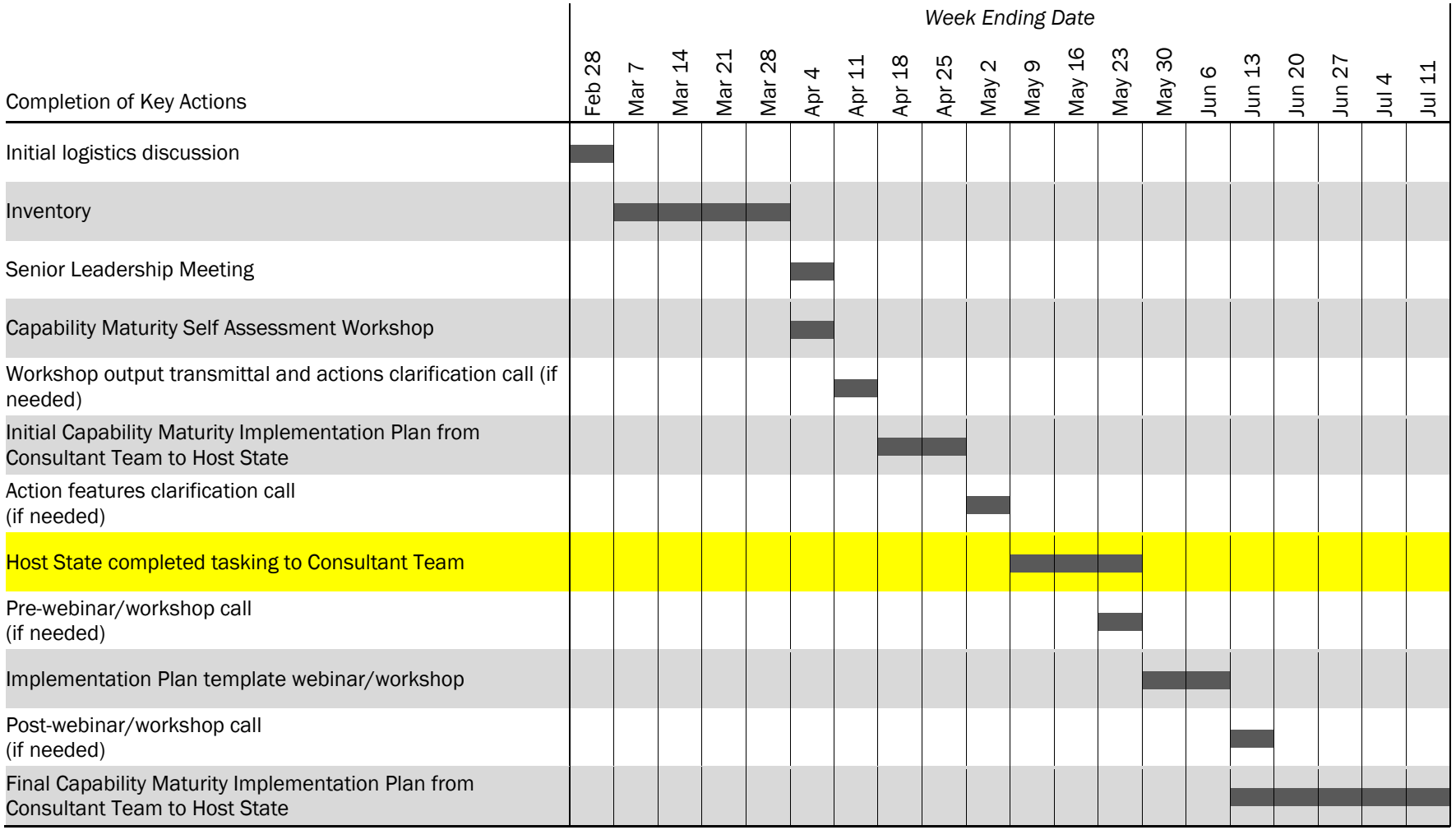
Level	1 — Performed	2 — Managed	3 — Integrated	4 — Optimized
Criteria	Relationships ad hoc, and on personal basis (public-public, public-private)	Objectives, strategies and performance measures aligned among organized key players (transportation and public safety agencies) with after-action debriefing	Rationalization/sharing/formalization of responsibilities among key players through co-training, formal agreements and incentives	High level of TSM&O coordination among owner/operators (state, local, private)
Consensus		2		

Workshop Actions to Advance to the Next Level

- Reestablish the ITS technical advisory committee (see Business Processes action items).
- Establish regional training programs to address current inefficiencies associated with training new personnel (resulting from high turnover).
- Develop the Train the Trainer program into an ongoing opportunity, and schedule it such that agencies and staff members with time constraints are still given the opportunity to participate. Individuals who have already been trained would then be asked to provide TIM training to others. Explore alternative forms of TIM training, including online videos.
- Engage transit.

Milestone Schedule

for Major Process and Product Development Steps



Final Attendance Roster

Capability Maturity Self Assessment Workshop

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