

Tactical (TSMO) Use Cases

Use Case Number	Use Case	Purpose	Deployment Actions	CCAI Deliverables	Outcomes	CCAI Key Performance Indicators	FHWA Performance Measures
T1	Shared Major Incident Severity Classification	Create uniform definition of major interstate incidents across states.	Adopt common 3–4 tier severity scale; configure TMC systems.	Operational cross-border severity tagging.	Reduced response variability and improved coordination.	Reduction in non-recurring delay; reduced secondary crashes; improved TTTR Index.	PM1 Safety; PM3 Reliability
T2	Coordinated DMS Messaging Templates	Ensure consistent traveler messaging across borders.	Develop shared templates and synchronized activation triggers.	Joint DMS activation protocol.	Improved driver clarity and reduced confusion.	Improved TTTR Index; reduced speed variance upstream of incidents.	PM1 Safety; PM3 Reliability
T3	Cross-State CCTV Sharing	Improve situational awareness near borders.	Enable secure read-only CCTV access across states.	Live cross-border camera integration.	Faster verification and response decisions.	Reduced incident verification time; improved incident duration trends.	PM1 Safety; PM3 Reliability
T4	Operator Hotline + Event Viewer	Formalize structured cross-state communication.	Deploy dedicated hotline and shared event dashboard.	Active cross-border notification protocol.	Reduced coordination delays.	Reduced notification latency; improved TTTR stability.	PM3 Reliability
T5	Real-Time Diversion Route Protocol	Coordinate diversion activation during closures.	Pre-identify routes and synchronize triggers.	Documented diversion management protocol.	Reduced unmanaged spillover congestion.	Improved TTTR; stabilized truck TTTR.	PM3 Reliability; Freight Performance
T6	Cross-Border Incident Notification Automation	Automate structured incident alerts.	Configure automated event feeds between states.	Live automated notification exchange.	Reduced manual communication lag.	Reduced non-recurring delay minutes.	PM3 Reliability
T7	Joint Interstate Closure Approval Workflow	Standardize closure coordination.	Create shared workflow for major planned closures.	Formalized closure coordination agreement.	Improved predictability of restrictions.	Improved TTTR during planned events.	PM3 Reliability; Freight Performance
T8	Coordinated Amber Alert Protocol	Minimize congestion from alert activations.	Align messaging and operational procedures.	Joint traffic management protocol.	Reduced operational disruption.	Maintained TTTR stability during alerts.	PM1 Safety; PM3 Reliability
T9	Cross-State Queue Warning Synchronization	Extend queue warning across borders.	Synchronize detection	Active coordinated	Reduced secondary crash risk.	Reduced fatal/serious injury	PM1 Safety; PM3 Reliability



			thresholds and alerts.	queue warning system.		crashes; improved TTTR.	
T10	Shared Emergency Detour Library	Provide shared detour route visibility.	Develop interoperable detour route database.	Accessible cross-state detour reference.	Improved rerouting during closures.	Reduced full closure duration; improved TTTR.	PM3 Reliability
T11	Corridor Performance Dashboard	Create shared corridor performance visibility.	Deploy dashboard for TTTR, truck TTTR, incident duration.	Live shared performance dashboard.	Common performance framework.	Sustained TTTR and Truck TTTR improvement.	PM3 Reliability; Freight Performance
T12	Minimum Interstate Data Exchange Layer	Enable interoperable operational data exchange.	Exchange incident, work zone, weather, lane status feeds.	Active interoperable exchange environment.	Foundation for scalable digital corridor model.	>99% uptime; reduced data latency; improved TTTR.	PM3 Reliability; Freight Performance
T13	Lane Closure Visibility Feed	Increase transparency of lane restrictions.	Exchange structured lane closure data.	Operational shared lane status feed.	Improved proactive traffic management.	Reduced unplanned delay minutes; improved TTTR.	PM3 Reliability
T14	Freight-Focused Incident Tagging	Enhance freight operational awareness.	Add freight-priority tags to incident systems.	Operational freight alert feed.	Improved freight routing decisions.	Improved Truck TTTR Index; reduced variability.	Freight Performance Measure
T15	Truck Parking Data Integration	Improve cross-state truck parking awareness.	Integrate parking availability feeds.	Live shared truck parking data platform.	Reduced illegal parking exposure.	Improved truck TTTR; reduced crash exposure.	PM1 Safety; Freight Performance
T16	Weather Status Exchange Feed	Align response during weather events.	Exchange structured road condition data.	Live cross-border weather feed.	Improved storm predictability.	Stabilized TTTR during weather events.	PM1 Safety; PM3 Reliability
T17	Multi-State Work Zone Synchronization	Improve cross-border work zone visibility.	Exchange structured work zone event data.	Operational shared work zone visibility.	Reduced overlapping high-impact closures.	Improved TTTR during construction season.	PM1 Safety; PM3 Reliability
T18	Freight TTTR Data Layer	Develop corridor freight performance monitoring.	Aggregate multi-state freight speed data.	Operational freight data layer.	Improved corridor freight planning.	Measured Truck TTTR improvement; reduced extreme delay events.	Freight Performance Measure
T19	Interstate Digital Twin Pilot	Create digital operational model of corridor.	Deploy live digital twin integrated with TMC feeds.	Functional digital twin pilot segment.	Improved scenario testing and planning.	Reduced incident duration; improved forecasting accuracy.	PM3 Reliability
T20	Operations Data Archive & Analytics Repository	Enable long-term cross-state operational learning.	Develop shared structured data archive.	Accessible analytics repository.	Improved data-driven decisions.	Downward trend in non-recurring delay; sustained TTTR gains.	PM3 Reliability; PM1 Safety