

Component			Source
Service	Function	Sub-Function	Requirement
Transit Service Provider(s)			
AM			
MUSA			
AUA			
4.2.1.004	A list of authorized users shall be created, stored, updated and deleted for Ride Matching and Reservations Service.		Derived
4.2.1.004.a	A list of authorized providers shall be created, stored, updated and deleted for the Ride Matching and Reservations Service.		Derived
4.2.1.009	A user profile shall be created, stored, updated and deleted for each user of the Ride Matching and Reservations Service.		Derived
4.2.1.011	A user profile shall contain user account information.		Derived
4.2.1.012	A user profile shall contain service profile(s) for each service.		Derived
4.2.1.013	A user profile shall contain distribution profile(s) for each service.		Derived
4.2.1.014	User profile data shall be accepted into the system manually.		Derived
4.2.1.015	User profile data shall be accepted into the system electronically (standard format).		Derived
4.2.1.016	User profile data shall be accepted into the system electronically (Non-standard format).		Derived
4.2.1.016.a	All user profile data shall be checked for validity.		Derived
4.2.1.017.a	Users shall be allowed to store up to (TBD) distribution profiles per user profile.		Derived
4.2.1.018	A master user profile shall be created, stored, updated and deleted for each registered user.		Derived
4.2.1.019	A user profile shall be able to be activated and deactivated via an activation/deactivation request.		Derived
4.2.1.020	A user profile shall be able to be created, stored, updated, and deleted.		Derived
4.2.1.021	User account information shall include account number (assigned by the system).		Derived

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	4.2.1.021.a	User account information shall include a Personal Identification Number (PIN).	Derived
	4.2.1.022	User account information shall include user/company name.	Derived
	4.2.1.023	User account information shall include mailing address.	Derived
	4.2.1.024	User account information shall include phone number.	Derived
	4.2.1.024.a	User account information shall include a fax number.	Derived
	4.2.1.024.b	User account information shall include a computer address.	Derived
	4.2.1.025	User account information shall include user list (for multiple user accounts, like a company account).	Derived
	4.2.1.026	User account information shall include credit card name(s), number(s), expiration date(s).	Derived
	4.2.1.027	User account information shall include financial institution name(s), account number(s).	Derived
	4.2.1.027.a	User account information shall include financial institution mailing address.	Derived
	4.2.1.027.b	User account information shall include a financial institution computer address.	Derived
	4.2.1.027.c	User account information shall include user account balance.	Derived
	4.2.1.027.d	Users shall be allowed to query user account information.	Derived
	4.2.1.027.e	User account information shall be validated with a financial institution via an account validation request.	Derived
	4.2.1.027.f	An account validation shall be received from a financial institution via an account validation notice.	Derived
	4.2.1.046	Ride Matching and Reservations Service profile data shall include origin/destination points.	Derived
	4.2.1.047	Ride Matching and Reservations Service profile data shall include arrival time(s).	Derived
	4.2.1.048	Ride Matching and Reservations Service profile data shall include departure time(s).	Derived

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	4.2.1.049	Ride Matching and Reservations Service profile data shall include travel mode.	Derived
	4.2.1.050	Ride Matching and Reservations Service profile data shall include special needs.	Derived
	4.2.1.055	A service profile shall be created, stored, updated, and deleted.	Derived
	4.2.1.056	A service profile shall be able to be activated and deactivated via an activation/deactivation request.	Derived
	4.2.1.057	Distribution profile data shall contain the user-specific parameters, needed to transmit information from a given service to the user, including notification device (eg.; phone, fax, computer).	Derived
	4.2-1 .058	Distribution profile data shall contain notification address (eg.; phone/fax number, computer id and address).	Derived
	4.2.1.059	Distribution profile data shall contain user type (to support prioritization of delivery where applicable).	Derived
	4.2.1.059.a	A distribution profile shall be able to be activated/deactivated via an activation/deactivation request.	Derived
	4.2.1.060	Distribution profile data shall be created, stored, updated, and deleted.	Derived
	4.2.1.060.a	A profile confirmation shall be sent to each user registered for a service to confirm their registration.	Derived
	4.2.1.060.b	A profile confirmation shall be sent to each user registered for a service to verify the correctness of the information contained in their user profile.	Derived
	4.2.1.061	A provider profile shall be created, stored, updated, and deleted for each rideshare service provider.	Derived
	4.2.1.062	Provider profile data shall be accepted into the system manually.	Derived
	4.2.1.063	Provider profile data shall be accepted into the system electronically (standard format).	Derived
	4.2.1.064	Provider profile data shall be accepted into the system electronically (non-standard format).	Derived

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	4.2.1.065	Provider profile information shall include provider identification number (assigned by the system).	Derived
	4.2.1.065.a	Provider profile information shall include provider name.	Derived
	4.2.1.065.b	Provider profile information shall include mailing address.	Derived
	4.2.1.065.c	Provider profile information shall include phone number.	Derived
	4.2.1.065.d	Provider profile information shall include fax number.	Derived
	4.2.1.065.e	Provider profile information shall include computer address.	Derived
	4.2.1.065.f	Provider profile information shall include vehicle type(s).	Derived
	4.2.1.065.g	Provider profile information shall include vehicle(s) seating capacity.	Derived
	4.2.1.065.h	Provider profile information shall include vehicle(s) information (make, model, color).	Derived
	4.2.1.065.i	Provider profile information shall include vehicle(s) license number.	Derived
	4.2.1.065.j	Provider profile information shall include driver name(s).	Derived
	4.2.1.065.k	Provider profile information shall include safety certification information.	Derived
	4.2.1.066	A master provider profile shall be created, stored, updated and deleted for each rideshare service provider.	Derived
	4.2.1.066.a	Provider profile information shall be validated with external information sources (e.g., DMV for moving violations, etc.)	Derived
	4.2.1.067	A list of authorized providers shall be created, stored, updated and deleted for the Ride Matching and Reservations Service.	Derived
	4.2.1.067.a	A profile confirmation shall be sent to each Ride Matching and Reservations Service provider to confirm their registration.	Derived
	4.2.1.067.b	A profile confirmation shall be sent to each Ride Matching and Reservations Service provider to verify the correctness of the information contained in their provider profile.	Derived

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		MSU	
	4.2.2.004	Service usage data shall be collected for Ride Matching and Reservations Service.	Derived
	4.2.2.012	Service usage data collected for Ride Matching and Reservation shall include ride completion data, including date and time of each service usage and service options used.	Derived
	4.2.2.013	Service usage data collected for Ride Matching and Reservation shall include a passenger list.	Derived
	4.2.2.026	Service usage statistics shall be compiled based on analysis of service usage data over time.	Derived
	4.2.2.027	Service usage statistics shall be compiled for usage by individual account.	Derived
	4.2.2.028	Service usage statistics shall be compiled for usage levels for each service.	Derived
	4.2.2.029	Service usage statistics shall be compiled for usage for each pricing structure within a service.	Derived
	4.2.2.030	Service usage statistics shall be created, stored, updated and deleted.	Derived
		SBP	
	4.2.3.004	Service invoices shall integrate charges for many transportation modes and services including Ride Matching and Reservations Service.	USR 3.1.4,3.1.4.1,3.1.4
	4.2.3.009	A service invoice shall be compiled for each user account based on the service usage data and service pricing structures.	Derived
	4.2.3.010	Third party billing (for companies or other groups of users under a single account) shall be supported.	USR2.3.3.3, 3.1.1.5,3.1
	4.2.3.011	Periodic billing (eg. monthly, quarterly, etc) shall be supported.	Sbus 56-5
	4.2.3.015	Service payments shall include payment for Ride Matching and Reservations Service.	SR 3.1.4.4, GGO 13.5.2,
	4.2.3.015.a	Rideshare payments shall be made to Rideshare Service Providers.	Derived
	4.2.3.021	Service payments shall be accepted via credit card transactions.	USR2.4.3.1,3.1.0, 3.1.1
	4.2.3.023.a	Service payments shall be accepted via electronic funds transfers from financial institutions.	Derived

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		4.2.3.025	A single payment media shall be supported for all transportation services.	USR 3.1.2.1
		4.2.3.026	A single payment media shall be supported for transportation services and other uses, such as retail purchases, utility bills, etc.	USR 3.1.2.6
		4.2.3.027	A payment confirmation shall be sent to each user.	USR 3.1.1.3
		4.2.3.029	Service payments that are insufficient or past due shall be detected.	Derived
		4.2.3.030	A delinquent account notice shall be sent to users with overdue or insufficient payments.	Derived
PSPS				
MPR				
		4.1.1.001	Pricing requirements shall be collected from public agencies.	Derived
		4.1.1.002	Pricing requirements shall be collected from travelers.	Derived
		4.1.1.003.a	Pricing requirements shall be collected, stored, and updated to support pricing strategy and pricing structure planning activities.	Derived
		4.1.1.004	Service usage statistics shall be assessed to determine additional requirements.	Derived
MPS				
		4.1.2.004	Pricing strategies shall support incentive programs (eg. favor certain transportation modes, routes or user groups).	USR 3.1.4.3,3.1.5.2,3.1
		4.1.2.005	Pricing strategies shall be created, stored, updated and deleted.	Derived
MSPS				
		4.1.3.004	Service pricing structure(s) shall be established for Ride Matching and Reservation pricing.	Derived
		4.1.3.010	Service pricing structures, that implement pricing requirements and pricing strategies, shall include monthly price options.	Derived
		4.1.3.011	Service pricing structures, that implement pricing requirements and pricing strategies, shall include per use price options.	Derived

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	4.1.3.013	Service pricing structures, that implement pricing requirements and pricing strategies, shall include discounts.	Derived
	4.1.3.016	Service pricing structures, that implement pricing requirements and pricing strategies, shall include fixed fares (for Public Transit).	USR 3.1.2.2
	4.1.3.017	Service pricing structures, that implement pricing requirements and pricing strategies, shall include variable prices (for Public Transit and roadways).	USR 3.1.2.2, 3.1.5.1.1
	4.1.3.017.a	Service pricing structures, that implement pricing requirements and pricing strategies, shall include transit fares based on transit routes.	Derived
	4.1.3.019	Service pricing structures shall be created, stored, updated and deleted.	Derived
RMR			
		DRO	
		DRS	
	8.3.2.001	Real-time demand responsive dispatch shall be provided to allow paratransit and other passengers to schedule requests for same-day trips.	GGO 11.5.1, MnA 6.1.2,
	8.3.2.002	Upon receipt of a DEMAND RESPONSIVE REQUEST, the vehicle driver shall be contacted in real-time to determine if the driver will accept the request.	USR 1.4.1.4, 2.3.2.9,2.3
	8.3.2.003	If the vehicle driver does not respond to the DEMAND RESPONSIVE REQUEST within (TBD) minutes, the DEMAND RESPONSIVE RESPONSE shall indicate “denied“.	USR 1.4.1.4,2.3.2.9,2.3
	8.3.2.004	If the vehicle driver responds to the DEMAND RESPONSIVE REQUEST within (TBD) minutes, the DEMAND RESPONSIVE RESPONSE shall indicate the driver’s response.	USR 1.4.1.4, 2.3.2.9,2.3
	8.3.2.005	If the demand responsive response is “confirmed”, the modified vehicle manifest shall be sent to the vehicle driver.	USR 1.4.1.4, 2.3.2.9, 2.3
		RSA	
	8.3.3.001	Rideshare vehicle location shall be determined automatically.	USR 2.3.3.1.a
	8.3.3.002	Rideshare vehicle location shall be determined to an accuracy of +/- (TBD) meters.	USR 2.3.3.2

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	8.3.3.003	VEHICLE PARAMETERS including rideshare vehicle location shall be reported to the rideshare fleet management facility.	USR 2.3.3.2
	8.3.3.004	Schedule adherence information shall be maintained to support real time schedule adjustments, and to provide status information for customer service.	USR 2.1.2.2.5,2.3.3.2
	8.3.3.005	Schedule adherence information shall be reported as necessary to notify passengers that the rideshare vehicle arrival is imminent.	USR 2.3.1.4
	8.3.3.006	A scenario for returning a vehicle to schedule adherence shall be determined.	USR 2.1.1.2.2,2.3.3.2
	8.3.3.007	A capability to dispatch taxicabs to pick-up rideshare participants shall be provided to enable a late ridesharing vehicle to regain schedule adherence.	GGO 11.5.2
	8.3.3.008	Corrective instruction vehicle commands shall be automatically issued to the vehicle drivers.	USR 2.1.1.2.1.4,2.3.3.2
	8.3.3.009	Corrective instruction vehicle commands shall include a) changes in stops and b) route corrections including rerouting around incidents and congestion.	USR2.1.1.2.1.4
	8.3.3.010	Fleet vehicles shall arrive/depart within (TBD) minutes of the published schedule.	USR 2.3.3.2
	8.3.3.011	A capability to delay connecting vehicle departures shall be provided when travelers with connecting rides are late.	Derived
	8.3.3.012	Travelers shall be notified if they missed a travel connection.	Derived
	8.3.3.013	A TRAVEL CONDITIONS REQUEST shall be established for each transit route to enable the collection of TRAVEL CONDITIONS along the route.	Derived
	8.3.3.014	TRAVEL CONDITIONS shall be monitored to determine when traffic could cause a schedule deviation along a route.	Derived
RSU	8.3.1.001	RIDESHARE COMPLETIONS data including passenger trip origin and pick-up time shall be collected and stored as service usage data.	USR 1.4.3.5, 1.4.3.6,2.3
	8.3.1.002	RIDESHARE COMPLETIONS data including passenger trip destination and drop-off time shall be collected and stored as service usage data.	USR 1.4.3.5, 1.4.3.6,2.3

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		DTSPI	
	8.1.5.001		Rideshare provider information reports shall be generated as needed by rideshare transportation providers. USR 1.4.2.3
	8.1.5.002		Rideshare provider information vehicle manifests shall be generated daily for each rideshare vehicle. Derived
		MRP	
	8.1.2.001		Rideshare matching of riders to providers shall be provided. GGO 4.5.2,4.5.4,4.10.3
	8.1.2.002		When a rideshare request for a future date is received, the available rideshare offers shall be filtered to determine rideshare information (i.e. a list of rideshare options and provider profile information) that meet the trip criteria. USR 1.4.1.3, 1.4.3.1, SB
	8.1.2.003		When a rideshare request for the current date is received, the available rideshare offers shall be filtered and combined with vehicle location to determine rideshare information (i.e. a list of rideshare options and provider profile information) that meet the trip criteria. USR 1.4.1.3, 1.4.3.1, SB
	8.1.2.004		If no available rideshare offers meet the rideshare request trip criteria, the request shall be waitlisted for the next rideshare route plan determination. ASIS
	8.1.2.005		When a rideshare request for a selected option is received, a seat on the selected vehicle shall be reserved for the requester. USR 2.3.2.5, GGO 4.10.
	8.1.2.006		When a rideshare request for a selected option on a future date is received, rideshare information that indicates a reserved seat shall be sent to the requestor via the Manage Rideshare Requests subfunction. USR 2.3.2.5, GGO 4.10.
	8.1.2.007		When a rideshare request for a selected option on the current day is received, a demand responsive request shall be sent to determine if the provider can accept the added passenger. USR 2.3.2.10
	8.1.2.008		When a "confirmed" demand responsive response is received, rideshare information that indicates a reserved seat shall be sent to the requestor via the Manage Rideshare Requests subfunction. USR 2.3.2.5, GGO 4.10.
	8.1.2.009		When a "confirmed" demand responsive response is received, an updated vehicle manifest shall be sent to the provider. USR 2.3.2.5, GGO 4.10.

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	8.1.2.010	When a “denied” demand responsive response is received, rideshare information that indicates “no seats available” shall be sent to the requestor via the Manage Rideshare Request subfunction.	USR 2.3.2.5, GGO 4.10.
	8.1.2.011	Rideshare personnel assignments shall include driver to run.	USR 2.3.4.3
	8.1.2.012	Rideshare personnel assignments shall include driver to training course.	GGO 12.10.2
	8.1.2.013	Rideshare vehicle assignments shall include vehicle to blocks.	USR 2.3.4.3
	8.1.2.014	Rideshare vehicle assignments shall include vehicle to maintenance garage.	Derived
	8.1.2.015	Rideshare vehicle assignments shall be determined using rideshare information for special passenger handling and service usage data.	USR 2.3.2.1
8	1.2.016	Rideshare vehicle assignments shall be determined for both publicly owned and privately owned/publicly licensed vehicles.	USR 2.3.2.6
	8.1.2.017	Rideshare vehicle assignments shall support demand responsive mode.	SB 46- 1
	8.1.2.018	When a maintenance request for preventative maintenance on a vehicle is received, the vehicle assignment for the vehicle shall be allocated to a maintenance garage if the minimum required number of vehicles would still be available for normal ridesharing operations.	USR 2.1.3.1.2
	8.1.2.019	When a driver indicates that his vehicle has broken down, the vehicle assignment for the failed vehicle shall be allocated to a maintenance garage.	Derived
	8.1.2.020	When a driver indicates that his vehicle has broken down, appropriate equipment and personnel shall be assigned to the failed vehicle’s location.	USR 2.1.3.1.4
	8.1.2.021	When a driver indicates that his vehicle has broken down, the vehicle assignment for a replacement vehicle shall be allocated to pick-up the stranded passengers and continue the run.	Derived
	8.1.2.022	When a training request for a driver is received, the personnel assignment for the driver shall schedule the driver for the training course if the minimum required number of drivers would still be available for normal ridesharing operations.	GGO 12.10.2
	8.1.2.023	When an incident RESOURCE REQUEST is received, available VEHICLE and PERSONNEL ASSIGNMENTS shall be allocated to the incident in support of law enforcement and/or emergency response agencies.	USR 2.4.4.3, 2.4.4.4,2.4

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		PRO	
	8.1.6.001	Rideshare Fleet Operating Procedures shall be continuously evaluated, improved and maintained to meet customer demand.	MTCO 10/3/96
		PRR	
	8.1.4.001	Individual daily rideshare route plans shall be determined for all vehicles participating in each daily run.	Derived
	8.1.4.002	Rideshare route plans shall be maintained for up to (TBD) days in advance of the run day.	Derived
	8.1.4.003	The rideshare route plan shall be determined periodically using rideshare offers, reserved rideshare requests and waitlisted rideshare requests.	USR 2.3.2.1, 2.3.2.4
	8.1.4.004	The rideshare route plan optimization shall support a strategy of minimizing passenger ride time.	USR 2.3.2.4, 2.3.4.2
	8.1.4.005	The rideshare route plan optimization shall support a strategy of maximizing vehicle occupancy.	Derived
	8.1.4.006	The rideshare route plan shall be compliant with Americans with Disabilities Act (ADA) regulations.	Derived
	8.1.4.007	If a waitlisted rideshare request is accommodated in a rideshare route plan, rideshare information (i.e. list of rideshare options) shall be sent to the requestor via the Manage Rideshare Requests subfunction.	Derived
	8.1.4.008	A final rideshare route plan shall be determined the night before the run begins.	Derived
	8.1.4.009	When the final rideshare route plan is completed, rideshare information (i.e. passenger manifest) and rideshare provider information (i.e. vehicle manifest) shall be generated.	GGO 4.5.1,4.10.1
	8.1.4.010	Rideshare route plans shall support transfers between demand responsive and fixed route vehicles.	Derived
		RSO	
	8.1.3.001	Rideshare offers for paratransit commercial operators shall be maintained.	USR 1.4.3.3
	8.1.3.002	Rideshare offers for Vanpools, express bus, bus, rail and taxis shall be maintained.	USR 1.4.2.4, 1.4.3.3

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	8.1.3.004	Rideshare offers shall include the number of seats available in the rideshare vehicle.	SB 73-4
	8.1.3.005	Rideshare offers for single trip carpools shall include origin and destination checkpoints.	SB 73-3
	8.1.3.006	Rideshare providers profile information shall be maintained for each provider.	Derived
	8.1.3.007	Manage Rideshare Request functions shall only be made available to transit providers that are authenticated by the ridesharing Authorized Provider List.	Derived
	8.1.3.008	Upon receipt of an Authorized Provider List, the list shall be saved for user authentication.	Derived
RSR			
DRI			
	8.2.3.001	When Rideshare Information indicating a confirmed rideshare request is received, the transit user shall be contacted and provided with Trip Itinerary listing departure and arrival times, along with times associated with any intermediate stops.	USR 2.3.1.3
	8.2.3.002	When Rideshare Information indicating a confirmed rideshare request is received, the transit user shall be contacted and provided with Provider Information (e.g. driver name, vehicle license number).	USR 1.4.0
	8.2.3.003	Schedule Adherence Information shall be used to compute the additional time it will take for the rideshare vehicle to arrive at the transit user departure point. When this time matches the timeout period listed in the transit User Profile, an imminent arrival notification (Rideshare Information) shall be sent to the transit user.	USR 2.3.1.4
	8.2.3.004	Mode Use Information data shall be maintained.	
	8.2.3.005	Mode Use Information shall include rideshare program data about registration for and access to ride matching and reservation services.	USR 1.1.1.1.6,2.2.3.2.2.
	8.2.3.006	Mode Use Information shall include transit provider information.	MnA 6.2.3, USR 1.4.0,
	8.2.3.007	Mode Use Information shall include security information (e.g. driver and vehicle identification).	GGO 4.5.3
	8.2.3.008	When RIDESHARE INFORMATION indicates an available ride for a waitlisted request, the transit user shall be contacted and notified about the available ride.	Derived

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	8.2.3.009		When RIDESHARE INFORMATION indicates an available ride for a waitlisted request, the RIDESHARE INFORMATION (i.e. rideshare options) shall be passed to the Manage Rider Requests subfunction to enable the user to select an available option.	Derived
	8.2.3.010		Mode Use Information shall be made available to any user.	
	RRQ			
	8.2.2.001		RIDESHARE REQUEST information shall be collected from the transit user to allow the user to request a specific rideshare trip itinerary.	
	8.2.2.002		RIDESHARE REQUEST information shall include Trip Date.	USR 1.4.1.2
	8.2.2.003		RIDESHARE REQUEST information shall include Trip Frequency (e.g. daily, weekly, monthly)	Sbus 74-1
	8.2.2.004		RIDESHARE REQUEST information shall include Time of pick-up.	USR 1.4.1.2,2.3.1.1
	8.2.2.005		RIDESHARE REQUEST information shall include Time of drop-off.	USR 1.4.1.2,2.3.1.1
	8.2.2.006		RIDESHARE REQUEST information shall include Trip Origin.	USR 1.4.1.2,2.3.1.1
	8.2.2.007		RIDESHARE REQUEST information shall include Trip Destination.	USR 1.4.1.2,2.3.1.1
	8.2.2.008		RIDESHARE REQUEST information shall include Rider Constraints (e.g. handicap access).	USR 1.4.1.2,2.3.1.2
	8.2.2.009		The transit user shall be permitted to submit a RIDESHARE REQUEST to obtain information about available single trips.	USR 1.4.1.1
	8.2.2.010		The transit user shall be permitted to submit a standing RIDESHARE REQUEST to obtain information about available daily, weekly or monthly trips.	Sbus 74-1
	8.2.2.011		The transit user shall be permitted to suspend a standing RIDESHARE REQUEST when the user has a change in travel plans.	Sbus 74-I
	8.2.2.012		The transit user shall be permitted to submit RIDESHARE REQUESTs via telephone, mail, or personally owned computer equipment.	Sbus 43-4
	8.2.2.013		The transit user shall be permitted to submit a RIDESHARE REQUEST to reserve a seat for a single trip, daily trip, weekly trip or monthly trip.	Sbus 43-4

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	1.1.2.005	Travel conditions source data shall include road surface conditions.	MnE 1.3
	1.1.2.007	Travel conditions source data shall include incident conditions.	MnE 1.3
	1.1.2.008	Travel conditions source data shall include planned event information.	MnE 1.3
	1.1.2.010	Travel conditions source data shall include transit conditions.	MnE 1.3
	1.1.2.012	Traffic conditions data shall be collected.	Derived
	1.1.2.013	Weather conditions shall be collected.	Derived
	1.1.2.017	Road surface conditions shall be collected from other systems.	Derived
	1.1.2.018	Incident conditions shall be collected from humans.	Derived
	1.1.2.019	Planned event information shall be collected from humans	Derived
	1.1.2.020	Planned event information shall be collected from other systems.	Derived
	1.1.2.022	Transit conditions shall be collected.	Derived
	1.1.2.023	Travel conditions source data shall be accepted for input in to the system via voice.	Derived
	1.1.2.024	Travel conditions source data shall be accepted for input in to the system via fax	Derived
	1.1.2.025	Travel conditions source data shall be accepted for input into the system via paper copy	Derived
	1.1.2.026	Travel conditions source data shall be accepted for input into the system via magnetic medium	Derived
	1.1.2.028	Travel conditions source data shall be accepted in the system via manual entry.	Derived
	1.1.2.029	Travel conditions source data shall be accepted into the system via electronic entry. (ITS standard format).	Derived
	1.1.2.029.a	Travel conditions source data shall be accepted into the system when in NTCIP format.	Derived
	1.1.2.029.b	Travel conditions source data shall be accepted into the system when in ITIS BAP format.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	1.1.2.030	Travel conditions source data shall be accepted into the system via electronic entry. (ITS non-standard format)	Derived
	1.1.2.031	Travel conditions source data received in a non-standard format shall be converted to standard format.	Derived
	1-1.2.032	Travel conditions source data shall be stored and maintained as an operator selectable option.	Derived
	1.1.2.033	Travel conditions source data that is no longer active shall be identified.	Derived
	1.1.2.034	Travel conditions source data that is no longer active shall be manually deletable.	Derived
	1. I .2.035	Travel conditions source data shall be logged upon initial receipt, change, and deletion.	Derived
	1. I .2.036	Condition start time shall be assigned when travel conditions source data is generated.	Derived
	1.1.2.037	Condition stop time shall be assigned to travel conditions source data.	MnE 2.2,2.6.2, 1.5.3, 1.
	1.1.2.038	Expected duration shall be assigned when travel conditions source data is generated.	MnE 2.2,2.6.2, 1.5.3, 1.
	1.1.2.044	Incident conditions shall be collected from other systems.	Derived
	1. I .2.045	Multiple sources of travel conditions source data shall be compared to improve the accuracy of the data.	Derived
	1.1.2.046	Multiple sources of travel conditions source data shall be compared to improve the consistency of the data.	Derived
DBTCTE			
	1.1.3.004	Travel conditions shall be referenced to a physical location.	MnE 1.1.1, 1.2
	1.1.3.005	Travel effects shall be referenced to a physical location.	MnE 1.1.1
	1.1.3.007	Link reference model data shall be stored and maintained.	Derived
	1.1.3.008	Travel conditions shall include current traffic conditions	USR 5.2.2.1
	1.1.3.009	Travel conditions shall include current weather conditions.	USR 5.2.2.1, GGO 10.5.

Component			Source
Service	Function	Sub-Function Requirement	
	1.1.3.010	Travel conditions shall include forecasted weather conditions.	MnE 1.1.2, 1.6.1, GGO
	1.1.3.011	Travel conditions shall include current road surface conditions.	USR 5.2.2.1
	1.1.3.012	Travel conditions shall include forecasted road surface conditions	Derived
	1.1.3.013	Travel conditions shall include current incident conditions.	USR 5.2.2.1
	1.1.3.014	Travel conditions shall include planned event information	MnE 1.6.1
	1.1.3.016	Travel conditions shall include current transit conditions	USR 1.1.2, 1.1.2.1
	1.1.3.017	Travel conditions shall include future transit conditions	MnE 2.5,2.6
	1.1.3.018	Travel conditions shall be stored and maintained.	Derived
	1.1.3.019	Traffic conditions shall include congestion	USR 5.2.2.1, MnE 1.4.1,
	1.1.3.020	Traffic conditions shall include freeway data.	USR 5.2.2.1, GGO 1.5.1
	1.1.3.021	Traffic conditions shall include traffic speeds	USR 5.2.2.1, USR 1.1.2.
	1.1.3.022	Traffic conditions shall include traffic levels (volume and occupancy)	USR 5.2.2.1, MnE 1.4.1,
	1.1.3.024	Weather conditions shall include rain.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.025	Weather conditions shall include snow.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.026	Weather conditions shall include fog.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.027	Weather conditions shall include clear weather.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.028	Forecast weather conditions shall be maintained.	MnE 1.1.2, 1.6.1,2.5,2.
	1.1.3.029	Road surface conditions shall include dry pavement.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.030	Road surface conditions shall include wet pavement.	MnE 1.1, 1.4.1, MnA 1.

Component			Source
Service	Function	Sub-Function Requirement	
	1.1.3.031	Road surface conditions shall include flooded pavement	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.032	Road surface conditions shall include snow covered pavement	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.033	Road surface conditions shall include icy pavement.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.034	Road surface conditions shall include plowed pavement	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.035	Road surface conditions shall include salted pavement.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.036	Road surface conditions shall include sanded pavement.	MnE 1.1, 1.4.1, MnA 1.
	1.1.3.037	Forecasted road surface conditions shall be maintained.	Derived
	1.1.3.038	Planned event information shall include current construction and maintenance.	USR5.2.2.1, 1.1.2.1.1,
	1.1.3.039	Incident conditions shall include dangerous situations and hazards	USR5.2.2.1, 1.1.2.1.1,
	1.1.3.040	Incident conditions shall include accidents	USR5.2.2.1, 1.1.2.1.1,
	1.1.3.041	Planned event information shall include special events.	USR5.2.2.1, 1.1.2.1.1,
	1.1.3.042	Future planned event information such as future construction and maintenance shall be maintained.	MnE 1.6.1,2.5,2.5.1, 2.
	1.1.3.043	Future planned event information such as upcoming special events/event schedules shall be maintained.	MnE 1.6.1,2.5,2.5.1,2.6,
	1.1.3.046	Transit conditions shall include estimated arrival times at each transit stop	GGO 1.5.2, MnE 2.3.1,
	1.1.3.046.a	Transit conditions shall include estimated departure times from each transit stop	Derived
	1.1.3.046.b	Transit conditions shall include transit vehicle schedule status relative to each stop along a route	Derived
	1.1.3.047	Transit conditions shall include schedule changes.	GGO 1.5.2, MnE 2.2,2.
	1.1.3.048	Transit conditions shall include route changes	GGO 1.5.2, MnE 2.2,2.

Component			Source
Service	Function	Sub-Function Requirement	
	1.1.3.049	Transit conditions shall include transfer changes.	GGO 1.5.2, MnE 2.2,2.
	1.1.3.050	Transit conditions for various public transit modes including public transit buses shall be determined	USR 1.1.2, 1.1.2.1
	1.1.3.053	Future transit conditions shall be maintained	Derived
	1.1.3.054	Travel conditions that are no longer active shall be identified.	Derived
	1.1.3.055	Travel effects that are no longer active shall be identified.	Derived
	1.1.3.056	Travel conditions shall be manually deletable.	Derived
	1.1.3.057	Travel effects shall be manually deletable.	Derived
	1.1.3.059	Travel effects shall be stored and maintained.	Derived
	1.1.3.060	Travel conditions shall be logged upon initial receipt, change and deletion.	Derived
	1.1.3.061	Travel effects shall be logged upon initial receipt, change and deletion.	Derived
	1.1.3.062	Agencies shall be able to access travel conditions without having to manually replicate the information.	MnA 1.1.2
	1.1.3.068	Travel effects shall be determined based on travel conditions source data.	Derived
	1.1.3.068.a	Travel effects shall be determined based on using travel effects rules.	Derived
	1.1.3.069	Travel effects shall include delays.	GGO 2.10.3, MnE 1.5.1
	1.1.3.070	Travel effects shall include road/ramp closings.	GGO 2.10.3, MnE 1.5.2
	1.1.3.071	Travel effects shall include detours.	GGO 2.10.3, MnE 1.5.2
	1.1.3.074	Future travel effects shall be determined and maintained, including expected delays.	MnE 1.7, MnE 1.7.1
	1.1.3.075	Future travel effects shall be determined and maintained, including planned road/ramp closings.	MnE 1.7, MnE 1.7. I

Component			Source
Service	Function	Sub-Function Requirement	
	1.2.1.012.b	Travel conditions shall be made available to humans	Derived
	1.2.1.012.c	Travel conditions shall be made available to other systems	Derived
	1.2.1.021	Travel conditions shall be distributed via electronic transfer to publicly owned computer.	MnE 1.3.3,2.4.3, MnA
	1.2.1.039	Transit travelers shall be notified when a transit vehicle is about to arrive.	USR 2.2.1.2.2.1.1,2.3.1.
DTTC			
	1.2.3.005	Travel conditions shall be received automatically upon occurrence of an event.	Derived
	1.2.3.006	Travel conditions shall be received automatically upon any change in an event.	Derived
	1.2.3.007	Travel conditions shall be received upon the issuing of a travel conditions request.	Derived
	1.2.3.024	Travel conditions shall contain active/or forecasted/future conditions.	Derived
	1.2.3.025	Forecasted travel conditions shall contain effects of active or forecasted/future conditions.	Derived
	1-2.3.027	Travel conditions shall contain conditions descriptions.	Derived
	1.2.3.030	Travel conditions information shall be compiled from travel conditions and travel effects for a local service area.	MnE 1.1.1,2.1.1
	1.2.3.031	Travel conditions information shall be compiled from travel conditions and travel effects for the metro area.	GGO 1.10.2
	1.2.3.034	Travel conditions information shall be compiled from travel conditions and travel effects for multiple counties.	MnE 1.8.1,2.7.1
	1.2.3.035	Travel conditions information shall be compiled from travel conditions and travel effects for multiple cities.	MnE 1.8.1,2.7.1
	1.2.3.038	Travel conditions information shall be compiled from travel conditions and travel effects for a geographic region.	MnE 1.8,2.7
	1.2.3.039	Travel conditions shall be compiled for the current time frame.	MnE 1.1.2, MnA 1.4.1,
	1.2.3.040	Travel conditions shall be compiled for the future time frame.	MnE 1.1.2, 1.6.1, USR 1.

Component			Source
Service	Function	Sub-Function Requirement	
		1.2.3.041 Travel conditions shall be compiled for the forecasted time frame.	MuE 1.1.2, 1.6.1, USR 1
		DTTE	
		1.2.2.002 Travel effects shall be received automatically upon the occurrence of an event.	Derived
		1.2.2.003 Travel effects shall be received automatically upon any change in an event.	Derived
TFM	MFO	MPT	
		7.2.6.001 A capability to delay connecting vehicle departures shall be provided when travelers with connecting rides are late.	SB 59-4.6
		7.2.6.002 Travelers shall be notified if they missed a travel connection.	MCTO 4/24/96 - 20
TPD	MTPD	DR	
		2.1.2.001 A route shall be determined based on route requirements.	MnE 3.2, USR 1.1.3.1.2,
		2.1.2.002 A route shall be determined based on predicted demand on the transportation system by that user.	USR 1.3.4.3.1
		2.1.2.003 Route information shall include total route travel time.	MnE 3.5.3,3.7.1,4.3.3
		2.1.2.004 Route information shall include total route travel distance.	MnE 3.7.2.
		2.1.2.005 Route information shall include segment travel times.	MnE 3.7.1,4.3.2
		2.1.2.006 Route information shall include segment travel distances.	MnE 3.7.1,4.3.2
		2.1.2.007 Route information shall include segment names(streets, roads, highways).	MnE 3.7.1
		2.1.2.008 Route information shall include estimated arrival time.	MnE 3.7.1
		2.1.2.012 Route information shall include routes highlighted on a map.	MnE 4.3

Component			Source
Service	Function	Sub-Function Requirement	
	2.1.2.012a.	If the travel conditions option is selected in the route requirements, then a route shall be determined using current or forecast travel conditions.	MnE 4.3
	2.1.2.013	If the travel conditions option is selected in the route requirements, then a route shall be determined using travel conditions, including traffic conditions.	USR 1.2.2.1.2.1, GGO 3.
	2.1.2.014	If the travel conditions option is selected in the route requirements, then a route shall be determined using street closures information.	USR 1.2.2.1.2.1, GGO 3.
	2.1.2.015	If the travel conditions option is selected in the route requirements, then a route shall be determined using public transit fleet schedules.	USR 1.2.2.1.2.1, GGO 3.
	2.1.2.016	If the travel conditions option is selected in the route requirements, then a route shall be determined using transit schedule change information.	USR 1.2.2.1.2.1, GGO 3.
	2.1.2.017	If the travel conditions option is selected in the route requirements, then a route shall be determined using transit system status	USR 1.2.2.1.2.1, GGO 3.
	2.1.2.022	If a transit detour is specified in the route requirements, then a route shall be determined that minimizes the schedule impact for that transit route.	Derived
	2.1.2.023	Link reference model data shall be accepted from multiple sources including public agencies.	Derived
	2.1.2.024	Link reference model data shall be accepted from multiple sources including information service providers.	Derived
	2.1.2.025	Link reference model data shall be accepted into the system via manual entry.	Derived
	2.1.2.026	Link reference model data shall be accepted into the system via electronic entry (standard form)	Derived
	2.1.2.027	Link reference model data shall be accepted into the system via electronic entry (non-standard form).	Derived
	2.1.2.028	A link reference model shall be stored and maintained.	Derived
	2.1.2.029	Public transit fleet schedules shall be stored, updated and deleted.	USR 2.2.3.1.1

MTTP

DTPD

Component				Source
Service	Function	Sub-Function	Requirement	
	2.2.3.014		Detour routes shall be made available via phone.	MnE 3.6.3
	2.2.3.015		Detour routes shall be made available via computer.	MnE 3.6.3, USR 1.3.4.1
	2.2.3.051		Upon receipt of a detour request, a set of route requirements will be formulated based on the information in the specific request about the transit route and transit stops that are involved.	Derived
	2.2.3.058		A detour request shall consist of origin/destination points	Derived
	2.2.3.059		A detour request shall contain an option to factor in current travel conditions in determining a detour route.	Derived
	2.2.3.060		A detour request shall contain desired arrival time.	Derived
	2.2.3.061		A detour request shall contain the maximum acceptable trip duration time.	Derived