

Component			Source
Service	Function	Sub-Function	Requirement
Tailored Traveler Information Provider			
AM			
M-USA			
AUA			
4.2.1.001	A list of authorized users shall be created, stored, updated and deleted for Travel Conditions Information Service.		Derived
4.2.1.002	A list of authorized users shall be created, stored, updated and deleted for Trip Planning and Directions Service.		Derived
4.2.1.003	A list of authorized users shall be created, stored, updated and deleted for Traveler Services Information Service.		Derived
4.2.1.006	A user profile shall be created, stored, updated and deleted for each user of the Travel Conditions Information Service.		Derived
4.2.1.007	A user profile shall be created, stored, updated and deleted for each user of the Trip Planning and Directions Service.		Derived
4.2.1.008	A user profile shall be created, stored, updated and deleted for each user of the Traveler Services Information 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	Users shall be allowed to store up to (TBD) service profiles per user profile.		Derived

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	4.2.1.017.	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
	4.2.1.02 1.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

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		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
		4.2.1.028	Travel Conditions Information Service profile data shall include departure location.	USR 1.1.3.2.2
		4.2.1.029	Travel Conditions Information Service profile data shall include departure time.	USR 1.1.3.2.3
		4.2.1.030	Travel Conditions Information Service profile data shall include arrival location.	USR 1.1.3.2.1
		4.2.1.031	Travel Conditions Information Service profile data shall include desired arrival time.	USR 1.1.3.2.4
		4.2.1.032	Travel Conditions Information Service profile data shall include up to TBD preferred route(s) per user.	USR 1.1.3.2.8
		4.2.1.033	Travel Conditions Information Service profile data shall include up to TBD alternate route(s) per user.	Derived
		4.2.1.034	Travel Conditions Information Service profile data shall include travel conditions notification criteria.	Derived
		4.2.1.035	Travel Conditions Information Service profile data shall include notification time frame (start and end times).	Derived
		4.2.1.036	Trip Planning and Directions Service profile data shall include preferred route type (eg. freeway, arterial, scenic, mix).	MnE 3.2.3, USR 1.3.4.2.
		4.2.1.037	Trip Planning and Directions Service profile data shall include preferred travel mode(s) (eg. automobile, bus, etc.)	MnE 3.2.1, USR 1.1.3.2.
		4.2.1.038	Trip Planning and Directions Service profile data shall include an option to minimize number of mode changes.	USR 1.1.3.2.6
		4.2.1.039	Trip Planning and Directions Service profile data shall include an option to minimize number of mass transit transfers.	USR 1.1.3.2.7, 1.3.4.2.2
		4.2.1.040	Trip Planning and Directions Service profile data shall include an option to minimize trip cost.	MnE 3.2.1

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	4.2.1.041	Traveler Services Information Service profile data shall include restaurant preferences.	MnE 6.3
	4.2.1.042	Traveler Services Information Service profile data shall include lodging preferences.	MnE 6.3
	4.2.1.043	Traveler Services Information Service profile data shall include airline preferences.	Derived
	4.2.1.044	Traveler Services Information Service profile data shall include rental vehicle preferences.	Derived
	4.2.1.045	Traveler Services Information Service profile data shall include travel mode preferences.	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
	4.2.1.068	The Travel Conditions Information Service profile shall contain up to (TBD) transit route(s).	Derived

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	4.2.1.069	The travel conditions profile shall allow a user to specify more than one active route at any given time.	Derived
MSU			
	4.2.2.001	Service usage data shall be collected for Travel Conditions Information Service.	Derived
	4.2.2.002	Service usage data shall be collected for Trip Planning and Directions Service.	Derived
	4.2.2.003	Service usage data shall be collected for Traveler Services Information Service.	Derived
	4.2.2.009	Service usage data collected for the Travel Conditions Information Service shall include service name.	Derived
	4.2.2.009.a	Service usage data collected for the Trip Planning and Directions Service shall include service name.	Derived
	4.2.2.009.b	Service usage data collected for the Traveler Services Information Service shall include service name.	Derived
	4.2.2.010	Service usage data collected for the Travel Conditions Information Service shall include date and time of each service usage.	Derived
	4.2.2.010.a	Service usage data collected for the Trip Planning and Directions Service shall include date and time of each service usage.	Derived
	4.2.2.010.b	Service usage data collected for the Traveler Services Information service shall include date and time of each service usage.	Derived
	4.2.2.011	Service usage data collected for the Travel Conditions Information Service shall include service options used within a service.	Derived
	4.2.2.011.a	Service usage data collected for the Trip Planning and Directions Service shall include service options used within a service.	Derived
	4.2.2.011.b	Service usage data collected for the Traveler Services Information Service shall include service options used within a service.	Derived
	4.2.2.026	Service usage statistics shall be compiled based on analysis of service usage data over time.	Derived

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	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			
	4.2.3.001	Service invoices shall integrate charges for many transportation modes and services including Travel Conditions information Service.	USR 3.1.4,3.1.4.1,3.1.4
	4.2.3.002	Service invoices shall integrate charges for many transportation modes and services including Trip Planning and Directions Service.	USR 3.1.4,3.1.4.1,3.1.4
	4.2.3.003	Service invoices shall integrate charges for many transportation modes and services including Traveler Services Information 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.	USR 2.3.3.3,3.1.1.5,3.1
	4.2.3.011	Periodic billing (eg. monthly, quarterly, etc) shall be supported.	Sbus 56-5
	4.2.3.012	Service payments shall include payment for Travel Conditions Information Service.	USR 3.1.4.4, GGO 13.5.
	4.2.3.013	Service payments shall include payment for Trip Planning and Directions Service.	USR 3.1.4.4, GGO 13.5.
	4.2.3.014	Service payments shall include payment for Traveler Services Information Service.	USR 3.1.4.4, GGO 13.5.
	4.2.3.021	Service payments shall be accepted via credit card transactions.	USR 2.4.3.1,3.1.0,3.1.1
	4.2.3.023.a	Service payments shall be accepted via electronic funds transfers from financial institutions.	Derived
	4.2.3.025	A single payment media shall be supported for all transportation services.	USR 3.1.2.1

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		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			
		4.1.1.002 Pricing requirements shall be collected from travelers.	Derived
		4.1.1.003 Pricing requirements shall be collected from private companies.	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			
		4.1.2.001 Pricing strategies shall support a self-sustaining business model for the services.	Derived
		4.1.2.002 As a goal, pricing strategies shall support public/private partnerships.	Derived
		4.1.2.003 As a goal, pricing strategies shall support cost sharing.	Derived
		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			
		4.1.3.001 Service pricing structure(s) shall be established for Travel Conditions Information pricing.	Derived
		4.1.3.002 Service pricing structure(s) shall be established for Trip Planning and Directions pricing.	Derived
		4.1.3.003 Service pricing structure(s) shall be established for Traveler Services Information pricing.	Derived

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	4.1.3.008.a	Service pricing structure(s) that implement pricing requirements and pricing strategies shall include yearly price options.	Derived
	4.1.3.009	Service pricing structures, that implement pricing requirements and pricing strategies, shall include quarterly price options.	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
	4.1.3.012	Service pricing structures, that implement pricing requirements and pricing strategies, shall include combination yearly, quarterly, monthly and per use price options.	Derived
	4.1.3.013	Service pricing structures, that implement pricing requirements and pricing strategies, shall include discounts.	Derived
	4.1.3.014	Service pricing structures, that implement pricing requirements and pricing strategies, shall include rebates.	Derived
	4.1.3.015	Service pricing structures, that implement pricing requirements and pricing strategies, shall include free trial periods.	Derived
	4.1.3.019	Service pricing structures shall be created, stored, updated and deleted.	Derived
RMR			
	DRO		
	RSA		
	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
	8.3.3.009	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
	8.3.3.012	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

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		8.3.3.014	TRAVEL CONDITIONS shall be monitored to determine when traffic could cause a schedule deviation along a route.	Derived
		RSR		
		DRI		
		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
		8.2.3.010	Mode Use Information shall be made available to any user.	
		TCI		
		MTCD		
		CTCD		
		1.1.2.001	Travel conditions source data shall include traffic conditions.	MnE 1.3
		1.1.2.002	Travel conditions source data shall include traffic surveillance data.	Derived
		1.1.2.003	Travel conditions source data shall include weather conditions.	MnE 1.3
		1.1.2.004	Travel conditions source data shall include weather surveillance data.	MnE 1.3
		1.1.2.005	Travel conditions source data shall include road surface conditions.	MnE 1.3
		1.1.2.006	Travel conditions source data shall include road surface surveillance data.	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
		1.1.2.009	Travel conditions source data shall include parking conditions.	MnE 1.3

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	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
	1.1.2.016	Road surface conditions shall be collected from humans	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
	1.1.2.021	Parking conditions shall be collected.	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

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	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
	1.1.2.035	Travel conditions source data shall be logged upon initial receipt, change, and deletion.	Derived
	1.1.2.036	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.
	1.1.2.039	Weather surveillance data shall be collected.	USR 3.1.2.5
	1.1.2.040	Road surface surveillance data shall be collected.	
	1-1.2.042	Traffic surveillance data shall be collected.	Derived
	1.1.2.044	Incident conditions shall be collected from other systems.	Derived
	1.1.2.045	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

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	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
I.	1.3.009	Travel conditions shall include current weather conditions.	USR 5.2.2.1, GGO 10.5.
	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
	1.1.3.015	Travel conditions shall include current parking conditions	USR 1.1.2.1.6
	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.

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	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.
	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 I.
	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,
	1.1.3.044	Parking conditions shall include parking availability.	USR 1.1.2.1.6, MnE 1.5.

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	1.1.3.045	Parking conditions shall include parking lot status	USR 1.1.2.1.6, MnE 1.4.
	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.
	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
	1.1.3.052	Transit conditions for various public transit modes including taxis shall be determined.	Derived
	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

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		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
		1.1.3.072	Travel effects shall include reduced speeds.	GGO 2.10.3, MnE 1.5.1
		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 1.7.1
		1.1.3.076	Future travel effects shall be determined and maintained, including planned detours.	MnE 1.7, MnE 1.7.1
		1.1.3.077	Travel effects that are no longer active shall be identified.	Derived
		1.1.3.079	A capability to enter travel effects rules shall be provided.	Derived
		1.1.3.080	Travel effects rules shall include current condition specific rules.	Derived
		1.1.3.081	Travel effects rules shall include future/forecast condition specific rules.	Derived
		1.1.3.082	Travel effects rules shall be created, stored and updated.	Derived
		1.1.3.083	Travel conditions shall be determined using traffic conditions.	Derived
		1.1.3.084	Travel conditions shall be determined using weather conditions	Derived
		1.1.3.085	Travel conditions shall be determined using road surface conditions.	Derived
		1.1.3.086	Travel conditions shall be determined using incident conditions	Derived
		1.1.3.087	Travel conditions shall be determined using planned event information.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
		1.1.3.088 Travel conditions shall be determined using parking conditions.	Derived
		1.1.3.089 Travel conditions shall be determined using transit conditions.	Derived
		1.1.3.090 Traffic conditions shall be determined using traffic surveillance data.	Derived
		1.1.3.091 Traffic conditions shall include arterial data.	Derived
		1.1.3.092 Weather conditions shall be determined using weather surveillance data.	Derived
		1.1.3.093 Road surface conditions shall be determined using road surface surveillance data.	Derived
		1.1.3.095 Traffic conditions shall include road segment travel time.	Derived
		1.1.3.096 Traffic conditions shall include signal timing data.	Derived
	MTCI		
		DTCI	
		1.2.1.001 Travel conditions requests shall be accepted for travel conditions.	Derived
		1.2.1.003 Each travel conditions request shall be checked for proper service level authorization.	Derived
		1.2.1.004 Authorized travel conditions requests shall be provided the requested travel conditions information	Derived
		1.2.1.005 A list of authorized users shall be created, stored, updated and deleted.	Derived
		1.2.1.006 Authorized users shall be allowed to request travel conditions.	Derived
		1.2.I.008 Authorized users shall be allowed to request travel effects.	Derived
		1.2.I.009 Authorized users shall be allowed to request trip alternative recommendations.	Derived
		1.2.1.010 A record of each service usage shall be stored for each travel conditions request.	Derived
		1.2.1.011 Travel conditions shall be formatted to the user-specific delivery device.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	1.2.1.012	As a goal, travel conditions will be made available to users 24 hours/day, 7 days/week, 365 days/year.	MnE 1.3.1,2.4.1, GGO
	1.2.1.012.a	Travel conditions shall be made available within the agreed to hours of operation.	Derived
	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
	1.2.1.016	Registered users shall be notified about travel conditions and travel effects according to predetined notification priority rules.	Derived
	1.2.1.017	Travel conditions shall be distributed via phone.	MnE 1.3.3,2.4.3, MnA
	1.2.1.019	Travel conditions shall be distributed via fax.	MnE 1.3.3,2.4.3, MnA
	1.2.1.021	Travel conditions shall be distributed via electronic transfer to publicly owned computer.	MnE 1.3.3,2.4.3, Mn4
	1.2.1.028	Travel conditions shall be distributed via pager.	USR 1.1.4.1.4
	1.2.1.030	Travel conditions shall be distributed via e-mail.	Derived
	1.2.1.032	Basic travel conditions shall be made available via on-line services.	Derived
	1.2.1.033	Travel conditions shall be distributed via electronic transfer to privately owned computer.	Derived
	1.2.1.035	Travel conditions shall be distributed via telephony.	USR 2.2.1.2.2.1. 1
	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.
	1.2.1.040	The distribution profile shall contain the user-specific parameters, including notification device, needed to prioritize format and transmit travel conditions to the user.	Derived
	1.2.1.041	The distribution profile shall contain the user-specific parameters, including notification address, needed to prioritize, format and transmit travel conditions to the user.	Derived
	1.2.1.042	The distribution profile shall contain the user-specific parameters, including user type needed to prioritize, format and transmit travel conditions to the user,	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	1.2.1.043	A distribution profile for each registered user shall be stored and maintained.	Derived
	1.2.1.044	Authorized users shall be notified of travel conditions, when travel effects exceed their notification criteria.	Derived
DTTC			
	1.2.3.001	Registered users affected by travel conditions shall be determined based on travel conditions, travel effects and user profile criteria.	Derived
	1.2.3.002	Registered users affected by travel conditions shall be determined automatically upon the occurrence of an event.	Derived
	1.2.3.003	Registered users affected by travel conditions shall be determined automatically upon any change in an event.	Derived
	1.2.3.004	Travel conditions shall be filtered based on user-specified parameters contained in the user profile	MnE 1.1.1, MnA 1.1.1,
	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
	1.2.3.023	A travel conditions profile for each registered user shall be created, stored, updated and deleted.	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
	1.2.3.026	Travel conditions information shall contain trip alternatives, if requested.	Derived
	1.2.3.027	Travel conditions shall contain conditions descriptions.	Derived
	1.2.3.028	Travel conditions information shall be compiled from travel conditions and travel effects for primary routes.	USR 1.1.2.1.5, .MnE2.1
	1.2.3.029	Travel conditions information shall be compiled from travel conditions and travel effects for alternate routes.	MnE 3.5.2

Component			Source
Service	Function	Sub-Function Requirement	
	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
	1.2.3.032	Travel conditions information shall be compiled from travel conditions and travel effects for freeways.	GGO 1.10.2, MnA 1.1.3
	1.2.3.033	Travel conditions information shall be compiled from travel conditions and travel effects for arterials.	MuA 1.1.3, 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
	1.2.3.036	Travel conditions information shall be compiled from travel conditions and travel effects statewide.	MnE 1.8.2,2.7.2
	1.2.3.037	Travel conditions information shall be compiled from travel conditions and travel effects for multiple states.	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.
	1.2.3.041	Travel conditions shall be compiled for the forecasted time frame.	MnE 1.1.2, 1.6.1, USR 1
	1.2.3.042	Travel conditions shall be compiled for the user's specific time.	USR 1.1.3.1.3
	1.2.3.043	Trip alternative recommendations shall be provided based on travel conditions and trip alternative rules.	Derived
	1.2.3.044	The ability to enter trip alternative rules shall be provided.	Derived

Component	Service Function	Sub-Function	Requirement	Source
		1.2.3.045	Trip alternative rules shall be created, stored, updated, and deleted.	Derived
		1.2.3.046	Travel conditions information shall be compiled from travel conditions and travel effects for primary route segments.	USR 1.1.2.1.5, MnE 2.1.
		1.2.3.047	Travel conditions information shall be compiled from travel conditions and travel effects for alternate route segments.	MnE 3..5.2
		DTTE		
		1.2.2.001	The effects of travel conditions on a given user shall be determine using parameters in the user profile and travel conditions.	Derived
		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
		1.2.2.004	Travel effects shall be received upon the issuing of a request for travel effects	Derived
TFM				
	MFO			
		MRC		
		7.2.5.006	A detour request shall be issued to determine how to re-route a transit vehicle around incidents and congestion.	MnA 6.3.3, MCTO 4/24/
		MSA		
		7.2.4.030	A TRAVEL CONDITIONS REQUEST shall be established for each transit route to enable the collection of TRAVEL CONDITIONS along the route.	Derived
		7.2.4.031	TRAVEL CONDITIONS shall be monitored to determine when traffic could cause a schedule deviation along a route.	Derived
		TRS		
		7.2.2.011	Transit conditions including actual road data shall be maintained.	USR 2.1. I. 1,2.2.2.1,2.2
		7.2.2.012	Transit conditions including traffic data shall be maintained.	USR 2.1.1. I, 2.2.2.1,2.2
		7.2.2.015	Transit conditions including schedule adherence information shall be maintained.	USR 2.1.1.1,2.2.2.1,2.2

Component			Source	
Service	Function	Sub-Function	Requirement	
		7.2.2.015.a	Transit conditions including route deviation information shall be maintained.	MCTO 5/2/96-2
		7.2.2.015.b	Transit conditions including area, corridor, route, and hub performance sampling shall be maintained .	MCTO 5/2/96-2,4/24/96
		7.2.2.015.c	Transit conditions including weather conditions shall be maintained.	MCTO 5/2/96-2
	PFO			
	POP			
		7.1.3.002	Transit mode use instructions shall be maintained and made available to meet customer demand.	MnE 3.7.5,6.4.6
TPD				
	MTPD			
	CD			
		2.1.3.001	Directions shall be computed from any user-specified source to any user-specified destination.	MnE 4.1, USR 1.3.1.1,
		2.1.3.002	Directions shall be computed for transit transfer and connections.	MnE 4.3.5
		2.1.3.003	Directions shall be based on a calculated route.	USR 1.3.2.2.2, GGO 3.5.
		2.1.3.003.a	If the travel conditions option is selected in the route requirements, then directions shall be determined using current or forecast travel conditions.	USR 1.3.2.2.2, GGO 3.5.
		2.1.3.004	If the travel conditions option is selected in the route requirements, then directions shall be determined using traffic conditions.	MnE 4.6, USR 1.1.3.3.1,
		2.1.3.005	If the travel conditions option is selected in the route requirements, then directions shall be determined using street closure information.	MnE 4.6, USR 1.1.3.3.1,
		2.1.3.006	If the travel conditions option is selected in the route requirements, then directions shall be determined using transit schedules.	MnE4.6,USR 1.1.3.3.1,
		2.1.3.007	If the travel conditions option is selected in the route requirements, then directions shall be determined using transit schedule changes.	MnE 4.6, USR 1.1.3.3.1,
		2.1.3.008	If the travel conditions option is selected in the route requirements, then directions shall be determined using transit system status.	MnE 4.6, USR 1.1.3.3.1,

Component			Source
Service	Function	Sub-Function Requirement	
	2.1.3.009	If the travel conditions option is selected in the route requirements, then directions shall be determined using no pedestrian zone information.	MnE4.6,USR1.1.3.3.1,
	2.1.3.010	If the travel conditions option is selected in the route requirements, then directions shall be determined using pedestrian event information.	MnE4.6,USR 1.1.3.3.1,
	2.1.3.011	If the travel conditions option is selected in the route requirements, then directions shall be determined using business closure, opening, and move information.	MnE4.6,USR 1.1.3.3.1,
	2.1.3.012	Directions information shall include mode of travel.	Derived
	2.1.3.013	Directions information shall include instructions text.	Derived
	2.1.3.014	Directions information shall include travel distance.	Derived
	2.1.3.015	Directions information shall include travel time.	Derived
	2.1.3.016	Directions information shall include travel cost.	Derived
	2.1.3.017	Instructions text shall include trip steps from origin to destination.	MnE 4.2,4.3, USR 1.3.1
	2.1.3.018	Instructions text shall include route/street names.	MnE 3.7.1, GGO 1.10.2
	2.1.3.019	Instructions text shall include which way to turn onto streets, roads, walkways and transit facilities.	USR 1.3.1.3
	2.1.3.020	Instructions text shall include direction changes(tums, exits, lane changes, mode changes, transfers).	MnE 4.2.2
	2.1.3.021	Instructions text shall include walking instructions.	Derived
	2.1.3.022	Instructions text shall include waiting instructions (i.e., layover times between trip segments).	Derived
	2.1.3.023	Instructions text shall include parking locations.	MnE 3.7.3,4.3.1
	2.1.3.024	Instructions text shall include transportation modes available.	MnE 4.3.4, GGO 10.5.3,
	2.1.3.025	Instructions text shall include transportation mode boarding, departure and transfer points	MnE 4.3.4, GGO 9.5.2,

Component			Source
Service	Function	Sub-Function Requirement	
	2.1.3.026	Instructions text shall include public transit vehicle/route identification.	MnE4.3.5,USR 1.1.1.1.
	2.1.3.027	Instructions text shall include connecting transit route information.	MnE4.3.4,USR 1.1.1.1.
	2.1.3.028	Instructions text shall include next transit stop information.	Sbus 59-4.3
	2.1.3.029	Instructions text shall include transit schedules.	USR 1.1.1.1.2, 1.3.2.1, 1
	2.1.3.030	Instructions text shall include instructions on how to use the mode (transit).	MnE 3.7.5,6.4.6
	2.1.3.031	Travel distance shall include travel distances for each segment.	MnE 4.3.2
	2.1.3.032	Travel distance shall include total travel distance.	MnE 4.3.3
	2.1.3.033	Travel time shall include travel times for each segment.	MnE 4.3.2
	2.1.3.034	Travel time shall include total travel time.	MnE 4.3.3
	2.1.3.035	Travel cost shall include transit fares.	MnE 3.7.2,4.3.3, USR 1
	2.1.3.036	Travel cost shall include parking fees.	MnE 3.7.2,4.3.3
	2.1.3.037	Travel cost shall include tolls.	MnE 3.7.2,4.3.3
	2.1.3.038	Travel cost shall include total trip costs.	MnE 3.7.2,4.3.3
	2.1.3.039	Directions shall be available for the metro-wide area.	MnE 4.7.1
	2.1.3.040	Directions shall be available for a multi-city area.	MnE 4.7.1
	2.1.3.041	Directions shall be available for a multi-county area.	MnE 4.7.1
	2.1.3.042	Directions shall be available for a multi-state area.	MnE 4.7.1
	2.1.3.043	Directions shall be made available for a statewide area.	MnE 4.7.2
	2.1.3.044	Directions shall be available for a user-specified geographic area,	MnE 4.7

Component		Source	
Service	Function	Sub-Function	
	Requirement		
	2.1.3.045	Directions changes shall be clearly noted with advance warning so that users can prepare for the change.	MnE 4.2.1,4.9.2
	2.1.3.046	A tracking capability shall be available to users to guide them through a set of directions.	MnE 4.9
	2.1.3.047	Directions shall be updated as the user progresses along a route.	MnE 4.9.3
	2.1.3.048	User's shall be notified of errors (missing or wrong turns) when following a set of directions.	MnE 4.9.4
	2.1.3.049	Directions shall be updated to get a user back on track to their destination after an error (missed or wrong turn) has occurred.	MnE 4.9.4
	2.1.3.050	A users location shall be determined automatically.	MnE 4.8.1,4.9.1
	2.1.3.051	Directions shall be computed from the user's automatically determined location to the user's specified destination.	MnE 4.8.2
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
	2.1.2.009	Route information shall include parking locations.	MnE 3.7.3,4.3.1
	2.1.2.010	Route information shall include parking availability.	MnE 3.7.3

Component			Source
Service	Function	Sub-Function Requirement	
	2.1.2.011	Route information shall include route travel cost (tolls, fares, parking).	MnE 3.7.2,4.3.3, USR 1
	2.1.2.012	Route information shall include routes highlighted on a map.	MnE 4.3
	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.
	2.1.2.018	If the travel conditions option is selected in the route requirements, then a route shall be determined using no pedestrian zones information.	USR 1.2.2.1.2.1, GGO 3.
	2.1.2.019	If the travel conditions option is selected in the route requirements, then a route shall be determined using pedestrian event information.	USR 1.2.2.1.2.1, GGO 3.
	2.1.2.020	If the travel conditions option is selected in the route requirements, then a route shall be determined using business closure, opening, and move information.	USR 1.2.2.1.2.1, GGO 3.
	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

Component			Source
Service	Function	Sub-Function Requirement	
	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			
BTI			
	2.2.2.001	A tailored trip itinerary shall be compiled based on user-specific criteria.	USR 1.1.3.1.1, 1.1.3.1.4
	2.2.2.002	A tailored trip itinerary shall include route highlighted on a map.	MnE 3.7,4.3
	2.2.2.003	A tailored trip itinerary shall include directions.	MnE 3.7,4.3
	2.2.2.004	A tailored trip itinerary shall include any requested Traveler Services Information (eg. airline, hotel, rental car reservations, etc.) including information about destination points.	MnE 6.7
	2.2.2.005	A tailored trip itinerary shall include any requested Traveler Services Information including information about points of interest along the route (e.g., service stations, restaurants, tourist sights, etc.)	MnE 6.7
DTPD			
	2.2.3.001	Tailored trip itineraries, tailored routes and tailored directions information shall be made available to users 24 hours/day, 7 days/week, 365 days/year.	MnE 3.6.1,4.4.1
	2.2.3.002	Tailored trip itineraries shall be made available via fax.	MnE 3.6.3
	2.2.3.003	Tailored trip itineraries shall be made available via computer.	MnE 3.6.3, USR 1.3.4.1
	2.2.3.004	Tailored trip itineraries shall be made available via in-vehicle devices.	MnE 3.6.3, USR 1.2.1.5,
	2.2.3.005	Tailored trip itineraries shall be made available via personal portable devices.	USR 1.1.4.1.4, 1.3.4.1,2
	2.2.3.006	Tailored trip itineraries shall be made available via kiosks.	USR 1.3.4.1,2.1.2.2.4,2
	2.2.3.007	Tailored trip itineraries shall be made available via printed media.	USR 2.1.2.2.3

Component			Source
Service	Function	Sub-Function Requirement	
	2.2.3.008	Tailored routes shall be made available via fax.	MnE 3.6.3
	2.2.3.009	Tailored routes shall be made available via computer.	MnE 3.6.3, USR 1.3.4.1
	2.2.3.010	Tailored routes shall be made available via in-vehicle devices.	MnE 3.6.3, USR 1.2.1.5,
	2.2.3.011	Tailored routes shall be made available via personal portable devices.	USR 1.1.4.1.4, 1.3.4.1.2
	2.2.3.012	Tailored routes shall be made available via kiosks.	USR 1.3.4.1,2.1.2,2.4.2
	2.2.3.013	Tailored routes shall be made available via printed media.	USR 2.1.2.2.3
	2.2.3.016	Tailored directions information shall be made available via phone	MnE 3.6.3, USR 1.3.4.1
	2.2.3.017	Tailored directions information shall be made available via fax.	MnE 3.6.3
	2.2.3.018	Tailored directions information shall be made available via computer.	MnE 3.6.3, USR 1.3.4.1
	2.2.3.019	Tailored directions information shall be made available via in-vehicle devices.	MnE 3.6.3, USR 1.2.1.5,
	2.2.3.020	Tailored directions information shall be made available via kiosks.	USR 1.3.4.1,2.1.2.2.4,2
	2.2.3.021	Tailored directions information shall be made available via printed media.	USR 2.1.2.2.3
	2.2.3.022	Tailored trip itineraries, tailored routes and tailored directions shall be made available via digital methods.	USR 1.1.4.2.1
	2.2.3.023	Tailored trip itineraries, tailored routes and tailored directions shall be made available via audio.	MnE 4.9.2, USR 2.2.1.2.
	2.2.3.025	Travelers shall be notified when to leave for any trip.	MnE 3.7.4
	2.2.3.030	Distribution profiles shall contain the user-specific parameters needed to transmit tailored trip itineraries, tailored routes and tailored directions to the user, including notification device (e.g: phone, fax, computer).	Derived
	2.2.3.031	Distribution profiles shall contain the user-specific parameters needed to transmit tailored trip itineraries, tailored routes and tailored directions to the user, including notification address (e.g.: phone/fax number, computer id and address).	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	2.2.3.032	Distribution profiles for each registered user shall be created, stored, updated and deleted.	Derived
	2.2.3.034	A list of authorized users shall be stored, updated and deleted.	Derived
	2.2.3.035	Each trip request shall be checked against a list of authorized users, for proper service level authorization prior to allowing access to the Trip Planning and Directions Service.	Derived
	2.2.3.036	Authorized users shall be allowed to request a trip itinerary from this service.	MnE 3.1, USR 1.1.3.1
	2.2.3.037	Authorized users shall be allowed to request a route from this service.	MnE 3.1
	2.2.3.038	Authorized users shall be allowed to request directions from this service.	MnE 4.1
	2.2.3.039	A trip request shall contain origin/destination points.	MnE 3.2.1, USR 1.1.3.2.
	2.2.3.040	A trip request shall contain option to factor in current or forecasted travel conditions.	MnP 3.2.4, USR 1.1.3.2.
	2.2.3.041	A trip request shall contain desired arrival time..	MnE 3.2.2, USR 1.1.3.2.
	2.2.3.042	A trip request shall contain desired departure time.	MnE 3.2.2, USR 1.1.3.2.
	2.2.3.043	A trip request shall contain maximum acceptable trip duration.	MnE 3.2.2, USR 1.1.3.2.
	2.2.3.044	A trip request shall contain preferred route(s)/route segment(s).	MnE 3.2.3, USR 1.1.3.2.
	2.2.3.045	A trip request shall contain a request for a route.	MnE 3.2.1, USR 1.1.3.2.
	2.2.3.048	A trip request shall contain a request for directions.	MnE 3.2.1, USR 1.1.3.2.
	2.2.3.049	A trip planning and directions profile for each registered user shall be created, stored, updated and deleted.	Derived
	2.2.3.050	Upon receipt of a trip request, a set of route requirements will be formulated based on the information in the specific request and the information in the user's trip planning and directions service profile.	Derived
	2.2.3.052	Users shall be allowed to perform "what if" trip planning based on changes to parameters in their trip request or changes to their trip planning and directions profile.	MnE 3.3,3.4,3.5.1

Component	Service	Function	Sub-Function	Requirement	Source
			2.2.3.053	Alternate route(s)/route segment(s) shall be determined based on travel conditions changes.	MnE 3.5.1,USR 1.1.2.1.
			2.2.3.054	A record of each service usage shall be stored for each trip planning and directions request.	Derived
			2.2.3.055	Query access of the the fleet schedule shall be available via telephone.	MCTO 4/24/96 - 20
			2.2.3.056	Query access of the the fleet schedule shall be available via Internet access.	MCTO 4/24/96 - 20
TSI					
	MTSD				
		BTS			
			3.1.2.001	Traveler services information shall geographically reference traveler services source data to specific, multi-modal route segments.	Derived
			3.1.2.008	Link reference model data shall be stored, updated and deleted.	Derived
			3.1.2.009	Traveler services information shall include restaurant information.	Derived
			3.1.2.010	Traveler services information shall include lodging/camping information.	Derived
			3.1.2.011	Traveler services information shall include fuel/vehicle services information.	Derived
			3.1.2.012	Traveler services information shall include emergency medical facilities information.	Derived
			3.1.2.013	Traveler services information shall include tourist sight information.	Derived
			3.1.2.014	Traveler services information shall include planned event information.	Derived
			3.1.2.015	Traveler services information shall include entertainment information.	Derived
			3.1.2.016	Traveler services information shall include shopping information.	Derived
			3.1.2.017	Traveler services information shall include airline information.	Derived
			3.1.2.018	Traveler services information shall include rental vehicle information.	Derived
			3.1.2.019	Traveler services information shall be created, stored, updated and deleted.	UST 1.5.1.1

Component			Source
Service	Function	Sub-Function Requirement	
	3.1.2.019a	Restaurant information shall include name.	Derived
	3.1.2.020	Restaurant information shall include description.	Derived
	3.1.2.021	Restaurant information shall include location.	Derived
	3.1.2.022	Restaurant information shall include phone number.	Derived
	3.1.2.023	Restaurant information shall include type of food.	Derived
	3.1.2.024	Restaurant information shall include hours of operation.	Derived
	3.1.2.025	Restarurant information shall include prices.	Derived
	3.1.2.026	Restaurant information shall include directions.	Derived
	3.1.2.027	Restaurant information shall include available parking information.	Derived
	3.1.2.028	Restaurant information shall include quality rating.	Derived
	3.1.2.029	Restaurant information shall include alternate modes of transporation available.	Derived
	3.1.2.029.a	Lodging/camping information shall include name.	Derived
	3.1.2.030	Lodging/camping information shall include type of facility.	Derived
	3.1.2.031	Lodging/camping information shall include description.	Derived
	3.1.2.032	Lodging/camping information shall include location.	Derived
	3.1.2.033	Lodging/camping information shall include phone number.	Derived
	3.1.2.034	Lodging/camping information shall include rates.	Derived
	3.1.2.035	Lodging/camping information shall include availability.	Derived
	3.1.2.036	Lodging/camping information shall include services available.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	3.1.2.037	Lodging/camping information shall include directions.	Derived
	3.1.2.038	Lodging/camping information shall include available parking information.	Derived
	3.1.2.039	Lodging/camping information shall include quality rating.	Derived
	3.1.2.040	Lodging/camping information shall include alternate modes of transportation available.	Derived
	3.1.2.040.a	Fuel/vehicle services information shall include facility name.	Derived
	3.1.2.041	Fuel/vehicle services information shall include type of facility.	Derived
	3.1.2.042	Fuel/vehicle services information shall include description.	Derived
	3.1.2.043	Fuel/vehicle information shall include location.	Derived
	3.1.2.044	Fuel/vehicle services information shall include phone number.	Derived
	3.1.2.045	Fuel/vehicle service information shall include hours of operation	Derived
	3.1.2.046	Fuel/vehicle service information shall include directions.	Derived
	3.1.2.047	Fuel/vehicle service information shall include prices.	Derived
	3.1.2.047a	Emergency medical facilities information shall include name.	Derived
	3.1.2.048	Emergency medical facilities information shall include type of facility.	Derived
	3.1.2.049	Emergency medical facilities information shall include description.	Derived
	3.1.2.050	Emergency medical facilities information shall include location.	Derived
	3.1.2.051	Emergency medical facilities information shall include phone number.	Derived
	3.1.2.052	Emergency medical facilities information shall include hours of operation.	Derived
	3.1.2.053	Emergency medical facilities information shall include directions.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	3.1.2.054	Emergency medical facilities information shall include alternate modes of transportation available.	Derived
	3.1.2.054.a	Tourist sight information shall include name.	Derived
	3.1.2.055	Tourist site information shall include type of facility.	Derived
	3.1.2.056	Tourist site information shall include description.	Derived
	3.1.2.057	Tourist site information shall include location.	Derived
	3.1.2.058	Tourist site information shall include phone number.	Derived
	3.1.2.059	Tourist site information shall include rates.	Derived
	3.1.2.060	Tourist site information shall include hours of operation.	Derived
	3.1.2.061	Tourist site information shall include directions.	Derived
	3.1.2.062	Tourist site information shall include available parking information.	Derived
	3.1.2.063	Tourist site information shall include alternate modes of transportation available.	Derived
	3.1.2.063.a	Planned event information shall include name of event.	Derived
	3.1.2.064	Planned event information shall include type of event.	Derived
	3.1.2.065	Planned event information shall include description.	Derived
	3.1.2.066	Planned event information shall include location.	Derived
	3.1.2.067	Planned event information shall include phone number.	Derived
	3.1.2.068	Planned event information shall include prices.	Derived
	3.1.2.069	Planned event information shall include availability.	Derived
	3.1.2.070	Planned event information shall include hours of operation.	Derived

Component				Source
Service	Function	Sub-Function	Requirement	
		3.1.2.071	Planned event information shall include directions.	Derived
		3.1.2.072	Planned event information shall include available parking information.	Derived
		3.1.2.073	Planned event information shall include alternate modes of transportation available.	Derived
		3.1.2.074	Entertainment information shall include type of entertainment.	Derived
		3.1.2.075	Entertainment information shall include description.	Derived
		3.1.2.076	Entertainment information shall include location.	Derived
		3.1.2.077	Entertainment information shall include phone number.	Derived
		3.1.2.078	Entertainment information shall include prices.	Derived
		3.1.2.079	Entertainment information shall include availability.	Derived
		3.1.2.080	Entertainment information shall include hours of operation.	Derived
		3.1.2.081	Entertainment information shall include directions.	Derived
		3.1.2.082	Entertainment information shall include available parking information.	Derived
		3.1.2.083	Entertainment information shall include alternate modes of transportation available.	Derived
		3.1.2.083.a	Shopping information shall include name of shopping facility.	Derived
		3.1.2.084	Shopping information shall include type of facility.	Derived
		3.1.2.085	Shopping information shall include description.	Derived
		3.1.2.086	Shopping information shall include location.	Derived
		3.1.2.087	Shopping information shall include phone number.	Derived
		3.1.2.088	Shopping information shall include hours of operation.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	3.1.2.089	Shopping information shall include directions.	Derived
	3.1.2.090	Shopping information shall include available parking information.	Derived
	3.1.2.091	Shopping information shall include alternate modes of transportation available.	Derived
	3.1.2.091.a	Airline information shall include name of airline.	Derived
	3.1.2.092	Airline information shall include flight departure times and destinations.	Derived
	3.1.2.093	Airline information shall include flight arrival times.	Derived
	3.1.2.094	Airline information shall include availability.	Derived
	3.1.2.095	Airline information shall include rates.	Derived
	3.1.2.096	Airline information shall include phone number.	Derived
	3.1.2.097	Airline information shall include special services.	Derived
	3.1.2.097a	Rental vehicle information shall include name of rental company.	Derived
	3.1.2.098	Rental vehicle information shall include location.	Derived
	3.1.2.099	Rental vehicle information shall include phone number.	Derived
	3.1.2.100	Rental vehicle information shall include types of vehicles offered.	Derived
	3.1.2.101	Rental vehicle information shall include rates.	Derived
	3.1.2.102	Rental vehicle information shall include availability.	Derived
	3.1.2.103	Rental vehicle information shall include directions.	Derived
	3.1.2.104	Rental vehicle information shall include special services.	Derived
	3.1.2.105	Traveler services information shall include recreational areas information.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	3.1.2.106	Traveler services information shall include parking information.	Derived
	3.1.2.107	Traveler services information shall include mode use information	Derived
	3.1.2.107a	Recreational areas information shall include name of recreational facility.	Derived
	3.1.2.108	Recreational areas information shall include type of area.	Derived
	3.1.2.109	Recreational areas information shall include location.	Derived
	3.1.2.110	Recreational areas information shall include hours of operation.	Derived
	3.1.2.111	Recreational areas information shall include services available.	Derived
	3.1.2.112	Recreational areas information shall include directions.	Derived
	3.1.2.112a	Parking information shall include name of parking facility.	Derived
	3.1.2.113	Parking information shall include location.	Derived
	3.1.2.114	Parking information shall include phone number	Derived
	3.1.2.115	Parking information shall include hours of operation.	Derived
	3.1.2.116	Parking information shall include parking rates.	Derived
	3.1.2.117	Parking information shall include services available.	Derived
	3.1.2.118	Parking information shall include total number of spaces available.	Derived
	3.1.2.119	Parking information shall include directions.	Derived
	3.1.2.120	Mode use information shall include name of transit organization/company.	Derived
	3.1.2.121	Mode use information shall include customer service phone number.	Derived
	3.1.2.122	Mode use information shall include hours of operation.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
	3.1.2.123	Mode use information shall include area of service.	Derived
	3.1.2.124	Mode use information shall include rules for use of the service.	Derived
	3.1.2.125	Mode use information shall include payment methods accepted.	Derived
	3.1.2.126	Mode use information shall include special services offered.	Derived
	3.1.2.127	Mode use information shall include transit organization/company address.	Derived
CTS			
	3.1.1.001	Traveler services source data shall include restaurant data.	MnE 6.1.1, USR 1.5.2.2
	3.1.1.002	Traveler services source data shall include lodging/camping data.	MnE 6.1.2, USR 1.5.2.2
	3.1.1.003	Traveler services source data shall include fuel/vehicle services data.	MnE 6.1.3, USR 1.5.2.2
	3.1.1.004	Traveler services source data shall include emergency medical facilities data.	MnE 6.1.4, USR 1.5.2.2
	3.1.1.005	Traveler services source data shall include tourist sight data.	MnE 6.1.5, USR 1.5.2.2
	3.1.1.006	Traveler services source data shall include planned event data.	MnE 6.1.6, USR 1.5.2.2
	3.1.1.007	Traveler services source data shall include entertainment data.	MnE 6.1.7, USR 1.5.2.2
	3.1.1.008	Traveler services source data shall include shopping data.	MnE 6.1.8, USR 1.5.2.2
	3. I. 1.009	Traveler services source data shall include airline data.	MnE 6.1.9, GGO 10.5.2
	3.1.1.010	Traveler services source data shall include rental vehicle data.	MnE 6.1.1
	3.1.1.011	Restaurant data shall be accepted from restaurant guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.012	Restaurant data shall be accepted from travel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.013	Lodging/Camping data shall be accepted from hotel/motel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.014	Lodging/Camping data shall be accepted from camping guides.	USR 1.5.1 1.5.1.2, 1.5.1

Component			Source
Service	Function	Sub-Function Requirement	
	3.1.1.015	Lodging/Camping data shall be accepted from travel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.016	Fuel/vehicle services data shall be accepted from travel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.017	Emergency medical facilities data shall be accepted from multiple sources.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.018	Tourist sight data shall be accepted from travel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.019	Tourist sight data shall be accepted from tourist agencies.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.020	Tourist sight data shall be accepted from chambers of commerce.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.021	Planned event data shall be accepted from event planners.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.022	Planned event data shall be accepted from tourist agencies.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.023	Planned event data shall be accepted from travel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.024	Entertainment data shall be accepted from travel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.025	Entertainment data shall be accepted from tourist agencies.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.026	Shopping data shall be accepted from travel guides.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.027	Shopping data shall be accepted from chambers of commerce.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.028	Shopping data shall be accepted from tourist agencies.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.029	Airline data shall be accepted from airlines.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.030	Airline data shall be accepted from travel agencies.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.031	Rental vehicle data shall be accepted from rental car companies.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.032	Rental vehicle data shall be accepted from travel agencies.	USR 1.5.1, 1.5.1.2, 1.5.1
	3.1.1.033	Traveler services source data shall be accepted for input into the system via voice.	Derived

Component	Service	Function	Sub-Function	Requirement	Source
			3.1.1.034	Traveler services source data shall be accepted for input into the system via fax.	Derived
			3.1.1.035	Traveler services source data shall be accepted for input into the system via paper copy.	Derived
			3.1.1.036	Traveler services source data shall be accepted for input into the system via magnetic medium.	Derived
			3.1.1.037	Traveler services source data shall be accepted for input into the system via digital methods.	Derived
			3.1.1.038	Traveler services source data shall be input into the system via manual entry.	Derived
			3.1.1.039	Traveler services source data shall be input into the system via electronic entry (standard format).	Derived
			3.1.1.040	Traveler services source data shall be input into the system via electronic entry (non-standard format).	Derived
			3.1.1.041	Traveler services source data received in a non-standard format shall be converted to standard format.	Derived
			3.1.1.042	Traveler services source data shall be created, stored, updated and deleted.	Derived
			3.1.1.043	Traveler services source data shall include recreational areas data.	Derived
			3.1.1.044	Traveler services source data shall include parking data.	Derived
			3.1.1.045	Traveler services source data shall include transit mode use information.	Derived
			3.1.1.046	Recreational areas data shall be accepted from travel guides.	Derived
			3.1.1.047	Recreational areas data shall be accepted from tourist agencies.	Derived
			3.1.1.048	Parking data shall be accepted from parking facilities.	Derived
			3.1.1.049	Mode use information shall be accepted from transit agencies.	Derived

MTTS

DTSI

Component			Source
Service	Function	Sub-Function Requirement	
	3.2.4.001	Tailored traveler information shall consist of user-specific traveler services that have been formatted to the user-specific delivery device.	Derived
	3.2.4.002	Tailored traveler information shall be made available to users 24 hour/day, 7 days/week, 365 days/year.	MnE 6.5.1
	3.2.4.003	Tailored traveler information shall be made available via phone.	MnE 6.5.3, USR 1.5.2.5
	3.2.4.004	Tailored traveler information shall be made available via fax.	MnE 6.5.3
	3.2.4.005	Tailored traveler information shall be made available via computer.	MnE 6.5.3, USR 1.5.2.5
	3.2.4.006	Tailored traveler information shall be made available via signs.	MnE 6.5.3
	3.2.4.007	Tailored traveler information shall be made available via radio.	MnE 6.5.3, USR 1.5.2.5,
	3.2.4.008	Tailored traveler information shall be made available via in-vehicle device.	USR 1.5.2.5, GGO 5.10.
	3.2.4.009	Tailored traveler information shall be made available via kiosk.	MnE 6.5.3, USR 1.5.2.5,
	3.2.4.010	Tailored traveler information shall be made available via personal portable devices.	USR 1.5.2.5
	3.2.4.011	Tailored traveler information shall be made available via HAR stations.	USR 1.5.2.5, GGO 10.5.
	3.2.4.012	Tailored traveler information shall be made available digitally (standard format).	Derived
	3.2.4.014	Tailored traveler information shall be made available via video.	Derived
	3.2.4.018	Distribution profiles for registered users shall be stored, updated and deleted.	Derived
	3.2.4.019	A list of authorized users shall be created, stored, updated and deleted.	Derived
	3.2.4.020	Each traveler services request shall be checked for proper service level authorization prior to allowing access to the Traveler Services Information Service.	Derived
	3.2.4.021	Authorized traveler services requests shall be provided the requested traveler services information.	MnE 6.1, USR 1.1.1, 1.1
	3.2.4.022	A record of each service usage shall be stored for each traveler services request.	Derived

Component			Source
Service	Function	Sub-Function Requirement	
		DTTS	
	3.2.2.001	Traveler services information shall be made available to users based on user-specified parameters.	MnE 6.3
	3.2.2.010	A traveler services profile for each registered user shall be created, stored, updated and deleted.	Derived
	3.2.2.016	User account information for registerd users shall be stored, updated and deleted.	Derived
	3.2.2.017	Tailored traveler information shall contain type of facility/service offered.	MnE 6.7.4
	3.2.2.018	Tailored traveler information shall contain description of the service or facility.	MnE 6.7.1
	3.2.2.019	Tailored traveler information shall contain location(address).	MnE 6.7.1
	3.2.2.020	Tailored traveler information shall contain directions in text and/or map form (either general directions or from the users location).	MnE 6.7.1
	3.2.2.021	Tailored traveler information shall contain hours/dates/season of operation.	MnE 6.7.2, USR 1.5.2.2
	3.2.2.022	Tailored traveler information shall contain prices/rates.	MnE 6.7.2
	3.2.2.023	Tailored traveler information shall contain availability of the facility, service or event.	MnE 6.7.2, USR 1.5.2.2
	3.2.2.024	Tailored traveler information shall contain parking availability/location for the facility or event.	MnE 6.7.3, USR 1.5.2.2
	3.2.2.025	Tailored traveler information shall contain alternate transportation modes available.	MnE 6.7.3
	3.2.2.026	Tailored traveler information shall contain reservation confirmation number(s).	Derived
	3.2.2.027	Tailored traveler information shall contain reservation date(s).	Derived
	3.2.2.028	Tailored traveler information shall be compiled for specific routes.	MnE 6.2, 6.2.3
	3.2.2.029	Tailored traveler information shall be compiled for a departure point (eg. roadway exit, transit stop).	MnE 6.2,6.2.2
	3.2.2.030	Tailored traveler informaiton shall be compiled for a destination.	MnE 6.2,6.2.4

Component			Source
Service	Function	Sub-Function Requirement	
	3.2.2.031	Tailored traveler information shall be compiled a specific area.	MnE 6.2, USR 1.5.2.2
	3.2.2.032	Tailored traveler information shall be compiled for the local area.	MnE 6.2, USR 1.5.2.1
	3.2.2.033	Tailored traveler information shall be compiled for an area nearest to the users current location.	MnE 6.2,6.2.1, USR 1.5
	3.2.2.034	Tailored traveler information shall be compiled to show miles to the next facility or service (e.g.; hotel, restaurant, service station).	MnE 6.2,6.2.1
	3.2.2.035	Tailored traveler information shall be compiled across multiple counties.	MnE 6.2, 6.6.1
	3.2.2.036	Tailored traveler information shall be compiled for a metro-wide area.	MnE 6.2,6.6.1
	3.2.2.037	Tailored traveler information shall be compiled across multiple cities.	MnE 6.2,6.6.1
	3.2.2.038	Tailored traveler information shall be compiled for a statewide area.	MnE 6.2,6.6.2, GGO 5.
	3.2.2.039	Tailored traveler information shall be compiled across multiple states.	MnE 6.2, 6.6.1
	3.2.2.040	Tailored traveler information shall be compiled across a wide geographic region.	MnE 6.2,6.6
MR			
	3.2.3.001	Users shall be able to make reservations for dining.	MnE! 6.4, USR 1.5.2.3
	3.2.3.002	Users shall be able to make reservations for lodging.	MnE 6.4, USR 1.5.2.3
	3.2.3.003	Users shall be able to make reservations for airline flights.	MnE 6.4
	3.2.3.004	Users shall be able to make reservations for rental vehicles.	MnE 6.4
	3.2.3.005	Users shall be able to make reservations for special events.	MnE 6.4
	3.2.3.006	Users shall be able to make reservations for entertainment.	MnE 6.4
	3.2.3.007	A reservation/ticket request shall be sent to the traveler service provider for processing.	Derived
	3.2.3.008	A reservation/ticket confirmation shall be received from the traveler service provider.	Derived

Component

Service Function	b-Function Requirement	
3.2.3.009	Users shall be allowed to purchase tickets for events, entertainment, tourist sites.	USR 1.5.1.4
3.2.3.010	Users shall be allowed to purchase airline tickets.	Derived
3.2.3.011	Users shall be allowed to make deposits for lodging reservations.	USR 1.5.1.4
3.2.3.012	User account information shall be sent to the traveler service provider, via the reservation/ticket request, when the user makes a purchase/deposit.	Derived
3.2.3.013	Users shall be able to make reservations for parking.	Derived