

NYSDOT Statewide ITS Architecture 2025

Project Summary Information

Name NY 06.01-Travel Planning Applications 511NY

Description

This project maintains and evolves the current usage and insights associated with the 511NY system; exploring private sector information; and gathering input from peer agencies and the public to develop recommendations for advanced techniques for collecting real-time and predictive travel information and disseminating that most effectively to all audiences.

Status Existing

Timeframe

Geographic Scope Statewide

Project Stakeholders

Name NY 06.01-Travel Planning Applications 511NY

StakeholderName

StakeholderDescription

NYS DOT - New York State Department of Transportation

NYS DOT provides reliable, environmentally and socially responsible transportation and motor vehicle networks and services to support and improve the safety and mobility of people and goods for the State of New York.

Project Elements

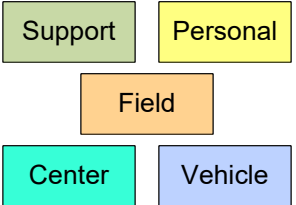
Name NY 06.01-Travel Planning Applications 511NY

ElementName	ElementDescription
511NY Systems	New York State 511 traveler information systems operated by NYSDOT.
AMTRAK and Rail Operations Centers	Includes: Amtrak's Consolidated National Operations Center (CNOC), and Local Operations for the region.
Commercial Vehicle Parking Management System	Parking systems designated for commercial vehicles.
County/Municipal/Rural Transit and Paratransit Providers Operations Center Systems	Represents transit operations systems for municipal/county transit operators including municipal and county shuttles. Functions include bus dispatch, vehicle tracking, scheduling, and fare management systems.
NITTEC Systems	NITTEC systems used for event management (incidents, construction, and special events) both highway and transit; performance measurement and analytics; travel time data collection; and the data fusion engine that creates a regional view of transportation system status (both roadway and transit).
NYSDOT ITS Field Equipment	Field equipment operated and maintained by NYSDOT including traffic signals, lane control signals, dynamic message signs, CCTV, environmental sensor stations, and portable equipment.
NYSDOT Parking Monitoring Systems	NYSDOT parking space monitoring systems. Used in commercial vehicle and park-and-ride lots.
NYSDOT Regional TMCs	NYSDOT Regional Traffic Management Centers.
NYSDOT STICC	NYSDOT Statewide Transportation Information Coordination Center.
NYSDOT TSMO Information Broker	A statewide TSMO information exchange network
Private Traffic Data Services	Private Information Service Providers e.g. Apple, Google Maps, Waze, INRIX, HERE, and traffic data management systems such as MS2.
Private Transportation Network Companies	A TNC is a private business licensed to use a digital network to connect passengers to TNC drivers for prearranged trips.
Private Transportation Network Company Vehicles	TNC drivers vehicles.
Private Travelers Personal Computing Devices	Personal computing devices such as smart phones, tablets, and laptops, and home or office personal computers.
TRANSCOM Systems	TRANSCOM system used for event management (incidents, construction, and special events) both highway and transit; performance measurement and analytics; travel time data collection; and the data fusion engine that creates a regional view of transportation system status (both roadway and transit).

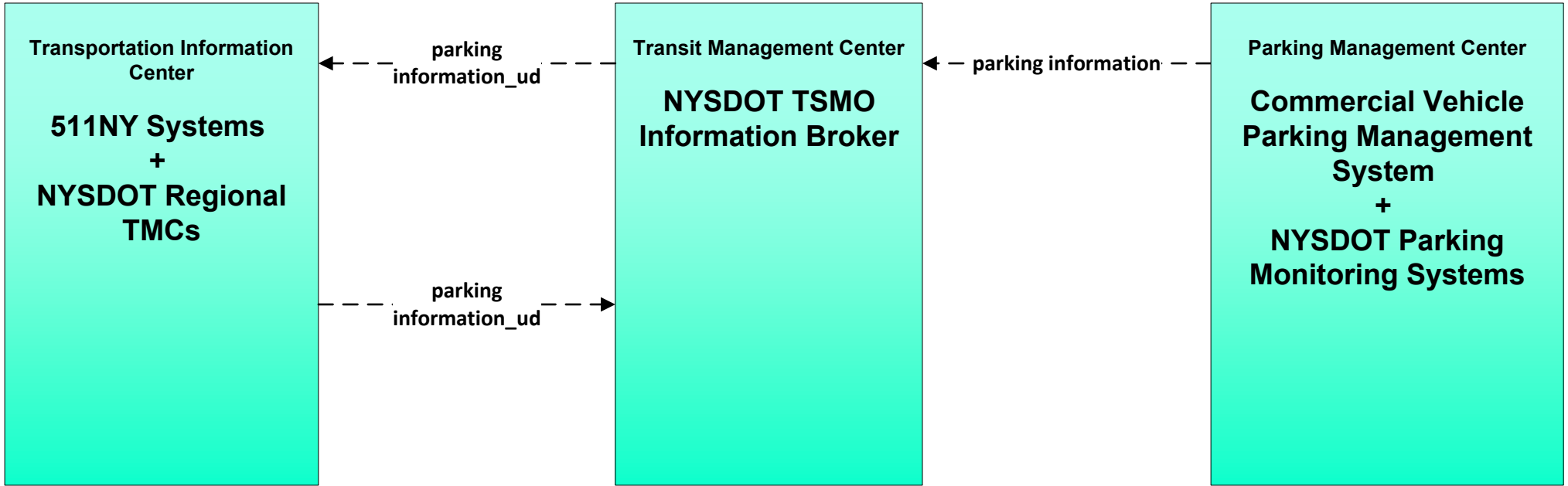
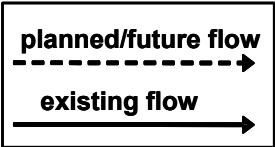
Project Service Packages

Name NY 06.01-Travel Planning Applications 511NY

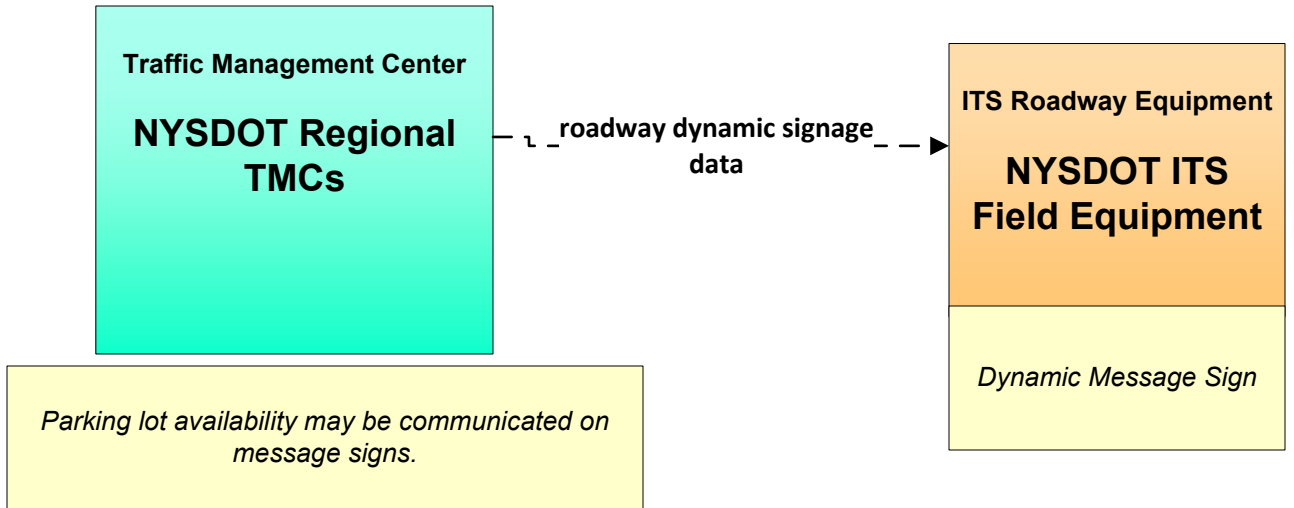
Service Package	Title	Sub Title
PM04	PM01-01(NYS DOT)	NYS DOT Park and Ride Information Sharing
PM04	PM01-02(NYS DOT)	NYS DOT Park and Ride Information Sharing
PT08	PT08-01(NYS DOT)	NYS DOT Transit Service Data Collection
TI02	TI02-01(NYS DOT)	New York Traveler Information
TI06	TI06-01(NYS DOT)	New York Traveler Information and Ride Share Support

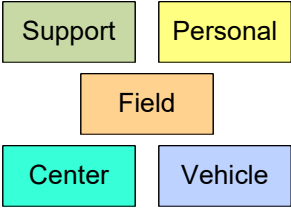


**PM04: Regional Parking Management
 NYSDOT Park and Ride Information Sharing**

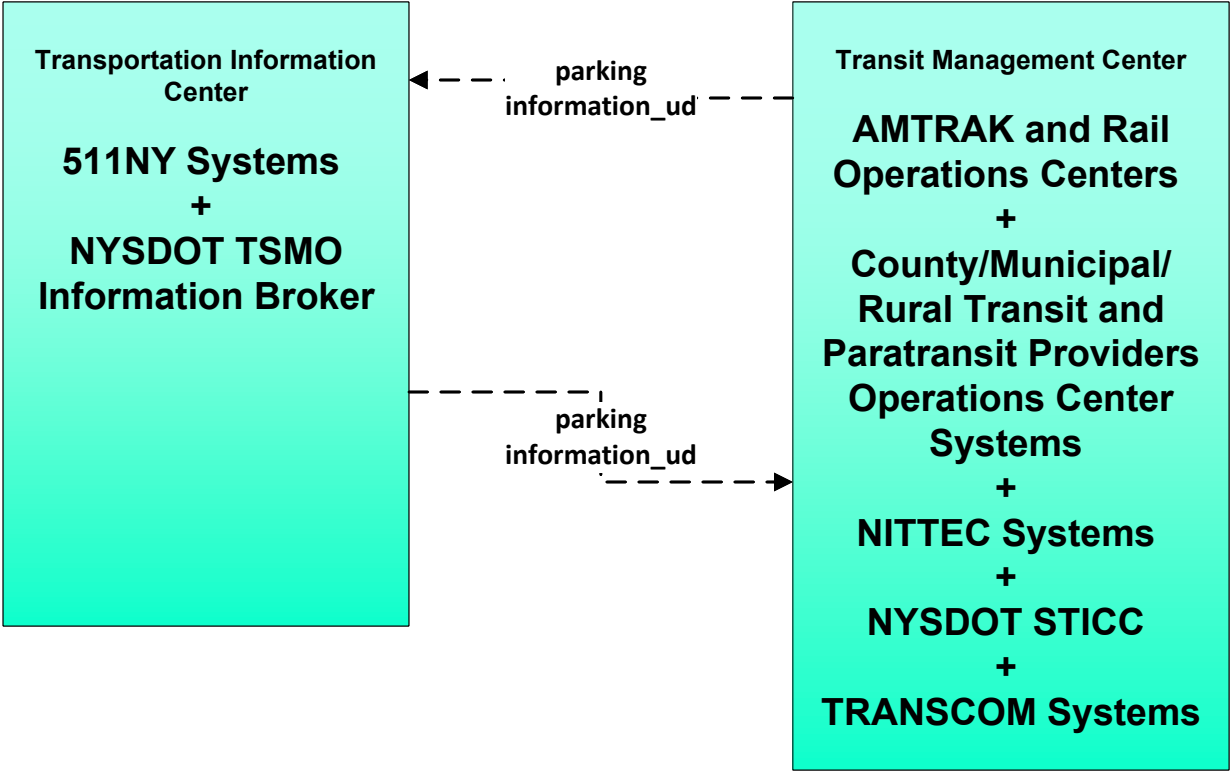
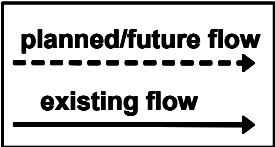


- NY 11.00-Statewide Corridors Management
- NY 11.01-Integrated Corridor Management System
- NY 06.00-Statewide 511 Traveler Information Program and Mobility Management Services
- NY 06.01-Travel Planning Applications 511NY
- NY 06.07-Influence Mode of Choice and Time of Use 511NY
- NY 06.08-Mobility Management Service
- NY 06.09-Multimodal Applications and Traveler Information





**PM04: Regional Parking Management
 NYSDOT Park and Ride Information Sharing**



NY 11.00-Statewide Corridors Management

NY 11.01-Integrated Corridor Management System

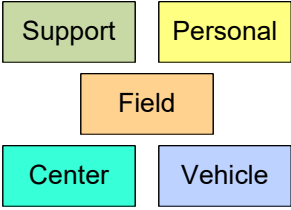
NY 06.00-Statewide 511 Traveler Information Program and Mobility Management Services

NY 06.01-Travel Planning Applications 511NY

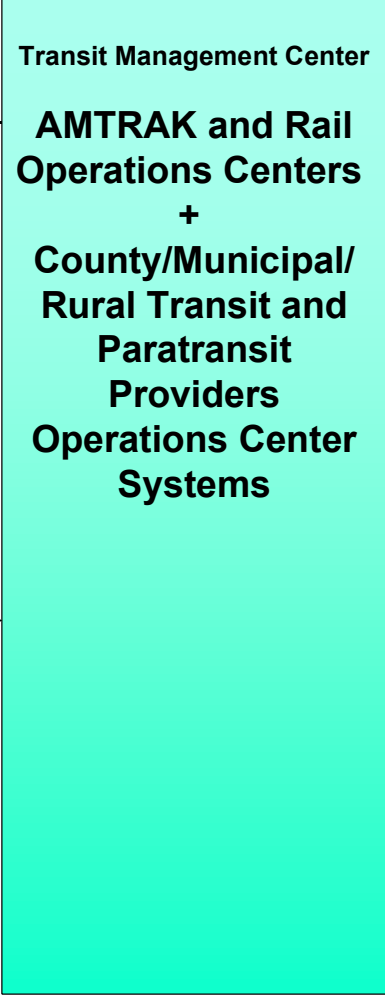
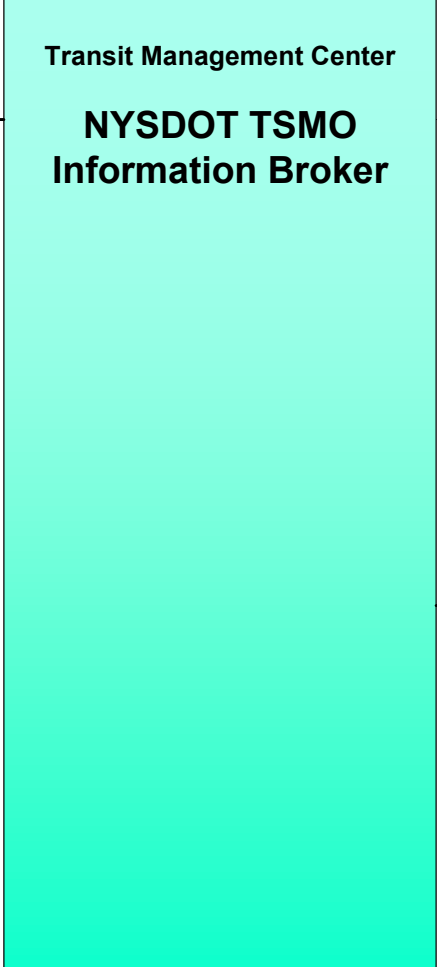
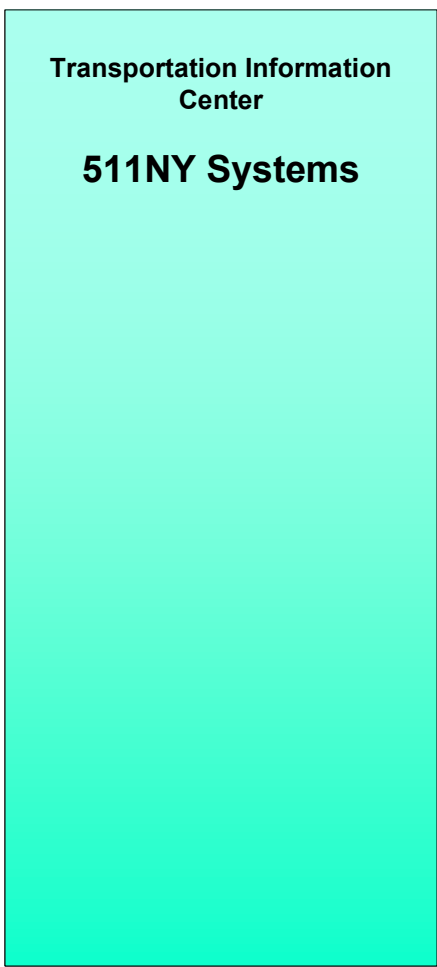
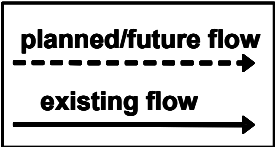
NY 06.07-Influence Mode of Choice and Time of Use 511NY

NY 06.08-Mobility Management Service

NY 06.09-Multimodal Applications and Traveler Information



**PT08: Transit Traveler Information
 NYSDOT Transit Service Data Collection**



transit and fare
 schedules
 +
 transit schedule
 adherence
 information

transit and fare
 schedules_ud
 +
 transit schedule
 adherence
 information_ud

transit and fare
 schedules_ud
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NY 06.00-Statewide 511 Traveler Information
 Program and Mobility Management Services

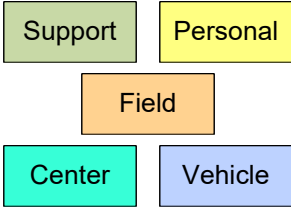
NY 06.08-Mobility Management Service

NY 11.00-Statewide Corridors Management

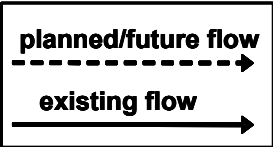
NY 06.01-Travel Planning Applications 511NY

NY 06.09-Multimodal Applications and Traveler
 Information

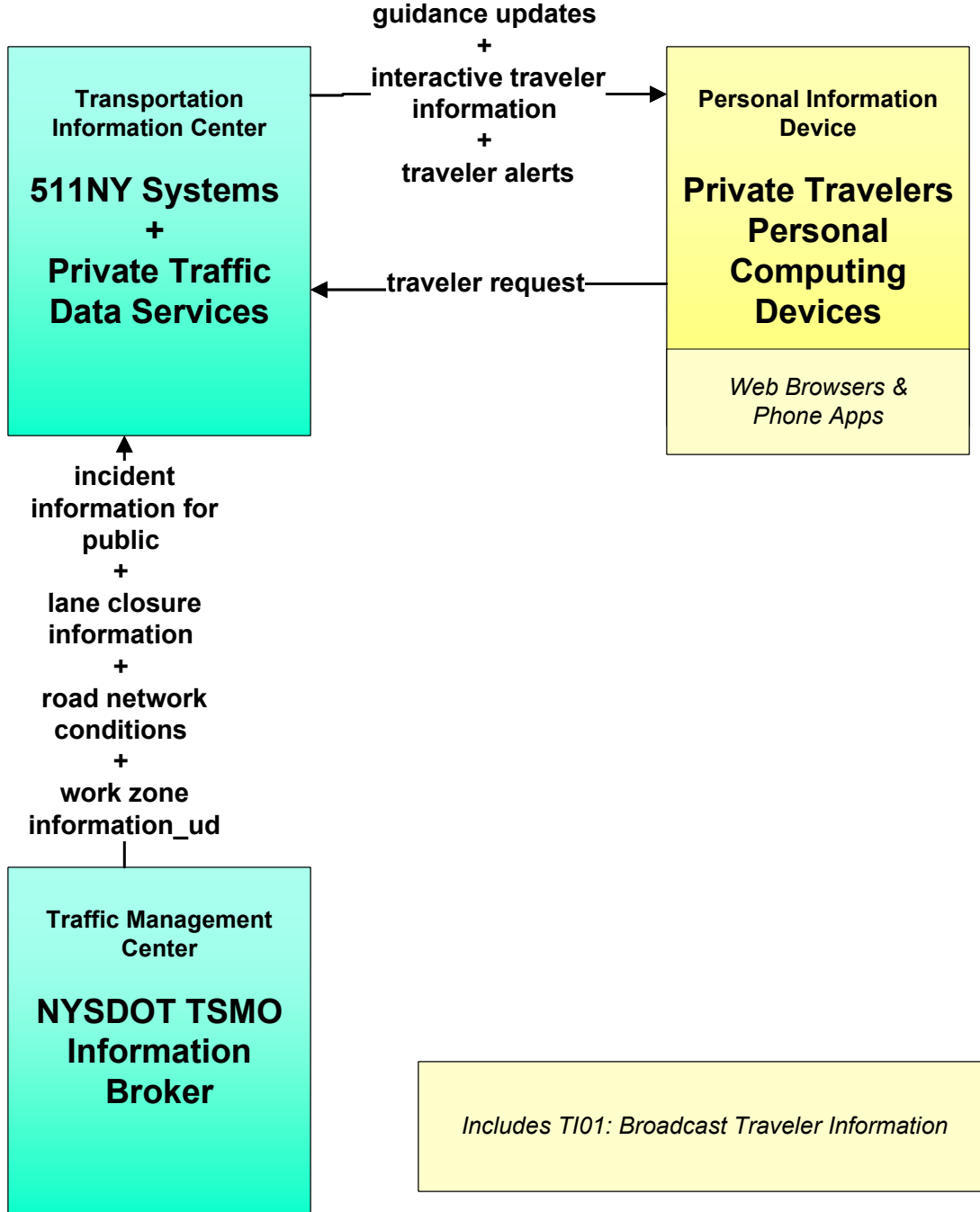
NY 11.01-Integrated Corridor Management System



TI02: Personalized Traveler Information New York Traveler Information

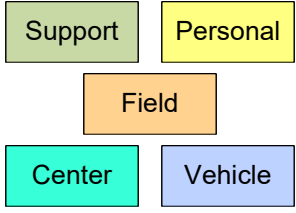
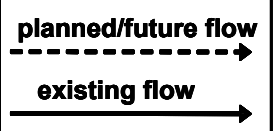


- NY 06.00-Statewide 511 Traveler Information Program and Mobility Management Services
- NY 06.01-Travel Planning Applications 511NY
- NY 06.02-CCTV Video Sharing 511NY
- NY 06.03-Road Conditions Sharing 511NY
- NY 06.04-Roadway Restrictions Sharing
- NY 06.07-Influence Mode of Choice and Time of Use 511NY
- NY 06.08-Mobility Management Service
- NY 06.09-Multimodal Applications and Traveler Information



Includes TI01: Broadcast Traveler Information

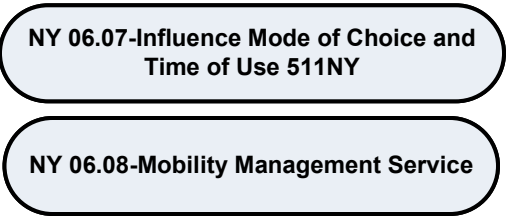
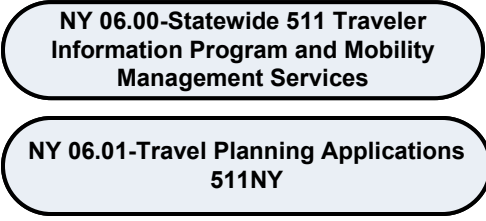
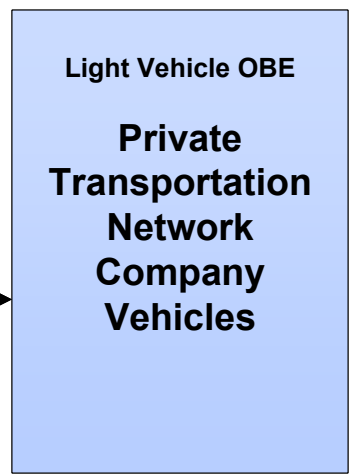
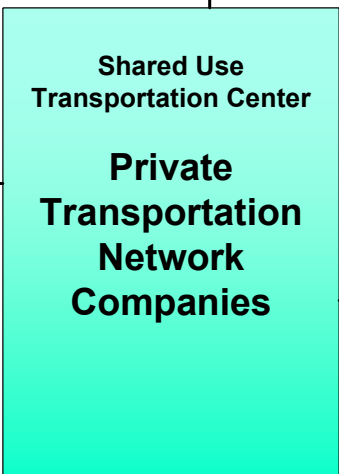
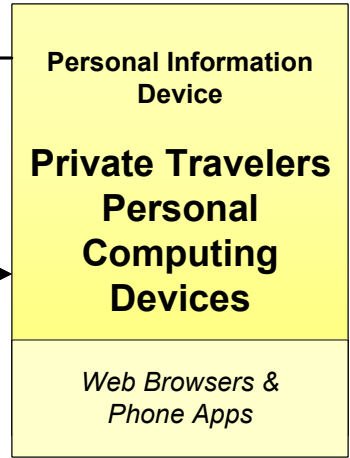
TI06: Shared Use Mobility and Dynamic Ride Sharing New York Traveler Information and Ride Share Support



Consider using the connection between Private TNCs, Transit, and 511NY could be used to measure/track first-mile, last-mile solution events.

See PT08 for Transit Traveler Information

Includes T103 En-route Guidance, and T104 Trip Planning and Payment



← trip request

→ trip plan

↑ shared use status

← shared use status

→ shared vehicle access enable

Project Element Candidate Functional Objects

ProjectName

NY 06.01-Travel Planning Applications 511NY

ElementName

511NY Systems

Element: 511NY Systems

New York State 511 traveler information systems operated by NYSDOT.

FunctionalObject: Transit Center Paratransit Operations

`Transit Center Paratransit Operations` manages demand responsive transit services, including paratransit services. It supports planning and scheduling of these services, allowing paratransit and other demand response transit services to plan efficient routes and better estimate arrival times. It also supports automated dispatch of paratransit vehicles and tracks passenger pick-ups and drop-offs. Customer service operator systems are updated with the most current schedule information.

FunctionalObject: Shared Use Operations

`Shared Use Operations` provides shared use services for eligible travelers, connecting with travelers for specific trips or vehicle usage based on preferences. It also provides the traveler with information about the shared use vehicle (including location information) and provides access codes to either the traveler or directly to the vehicle. Reservations and advanced payment are also supported so that each segment of the shared use/ trip may be confirmed.

FunctionalObject: TIC Data Collection

`TIC Data Collection` collects transportation-related data from other centers, performs data quality checks on the collected data and then consolidates, verifies, and refines the data and makes it available in a consistent format to applications that support operational data sharing between centers and deliver traveler information to end-users. A broad range of data is collected including traffic and road conditions, transit data, emergency information and advisories, weather data, special event information, traveler services, parking, multimodal data, and toll/pricing data. It also shares data with other transportation information centers.

FunctionalObject: TIC Dynamic Ridesharing

`TIC Dynamic Ridesharing` provides dynamic rideshare matches for eligible travelers, connecting riders and drivers for specific trips based on preferences. This ridesharing/ride matching capability also arranges connections to transit or other multimodal services for portions of a multi-segment trip that includes ridesharing. Reservations and advanced payment are also supported so that each segment of the trip may be confirmed.

FunctionalObject: TIC Interactive Traveler Information

`TIC Interactive Traveler Information` disseminates personalized traveler information including traffic and road conditions, transit information, parking information, maintenance and construction information, multimodal information, event information, and weather information. Tailored information is provided based on the traveler's request in this interactive service.

FunctionalObject: TIC Traveler Telephone Information

`TIC Traveler Telephone Information` services voice-based traveler requests for information that supports traveler telephone information systems like 511. It takes requests for traveler information, which could be voice-formatted traveler requests, dual-tone multi-frequency (DTMF)-based requests, or a simple traveler information request, and returns the requested traveler information in the proper format. In addition to servicing requests for traveler information, it also collects and forwards alerts and advisories to traveler telephone information systems.

ProjectName

NY 06.01-Travel Planning Applications 511NY

ElementName

511NY Systems

FunctionalObject: TIC Trip Planning

`TIC Trip Planning` provides pre-trip and en route trip planning services for travelers. It receives origin, destination, constraints, and preferences and returns trip plan(s) that meet the supplied criteria. Trip plans may be based on current traffic and road conditions, transit schedule information, and other real-time traveler information. Candidate trip plans are multimodal and may include vehicle, transit, and alternate mode segments (e.g., rail, ferry, bicycle routes, and walkways) based on traveler preferences. It also confirms the trip plan for the traveler and supports reservations and advanced payment for portions of the trip. The trip plan includes specific routing information and instructions for each segment of the trip and may also include information and reservations for additional services (e.g., parking) along the route.

FunctionalObject: TMC Multi-Modal Coordination

`TMC Multi-Modal Coordination` supports center-to-center coordination between the Traffic Management and Transit Management Centers. It monitors transit operations and provides traffic signal priority for transit vehicles on request from the Transit Management Center.

FunctionalObject: TMC Traffic Information Dissemination

`TMC Traffic Information Dissemination` disseminates traffic and road conditions, closure and detour information, incident information, driver advisories, and other traffic-related data to other centers, the media, and driver information systems. It monitors and controls driver information system field equipment including dynamic message signs and highway advisory radio, managing dissemination of driver information through these systems.

FunctionalObject: Transit Center Information Services

`Transit Center Information Services` collects the latest available information for a transit service and makes it available to transit customers and to Transportation Information Centers for further distribution. Customers are provided information at transit stops and other public transportation areas before they embark and on-board the transit vehicle once they are en route. Information provided can include the latest available information on transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, yellow pages, and special events. In addition to general service information, tailored information (e.g., itineraries) are provided to individual transit users.

FunctionalObject: Transit Center Multi-Modal Coordination

`Transit Center Multi-Modal Coordination` supports transit service coordination between transit properties and coordinates with other surface and air transportation modes. As part of service coordination, it shares schedule and trip information, as well as transit transfer cluster (a collection of stop points, stations, or terminals where transfers can be made conveniently) and transfer point information between Multimodal Transportation Service Providers, Transit Agencies, and ISPs. An interface to Traffic Management also supports demand management strategies.

FunctionalObject: Shared Use Account and Fee Management

`Shared Use Account and Fee Management` manages user accounts and payments at the Shared Use Transportation Center. It provides the back office functions that support payment reconciliation with links to financial institutions.

Element: AMTRAK and Rail Operations Centers

Includes: Amtrak's Consolidated National Operations Center (CNOc), and Local Operations for the region.

FunctionalObject: Transit Center Paratransit Operations

`Transit Center Paratransit Operations` manages demand responsive transit services, including paratransit services. It supports planning and scheduling of these services, allowing paratransit and other demand response transit services to plan efficient routes and better estimate arrival times. It also supports automated dispatch of paratransit vehicles and tracks passenger pick-ups and drop-offs. Customer service operator systems are updated with the most current schedule information.

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Element: Commercial Vehicle Parking Management System

Parking systems designated for commercial vehicles.

FunctionalObject: Parking Coordination

`Parking Coordination` supports communication and coordination between equipped parking facilities and also supports regional coordination between parking facilities and traffic management systems. Coordination with traffic management supports local traffic control coordination in and around the parking facility and broader regional coordination. It also shares information with transit management systems and information providers to support multimodal travel planning, including parking reservations capabilities. Information including current parking availability, system status, and operating strategies are shared to enable local parking facility management that supports regional transportation strategies.

Element: County/Municipal/Rural Transit and Paratransit
Providers Operations Center Systems

Represents transit operations systems for municipal/county transit operators including municipal and county shuttles. Functions include bus dispatch, vehicle tracking, scheduling, and fare management systems.

FunctionalObject: Transit Center Information Services

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ProjectName

NY 06.01-Travel Planning Applications 511NY

ElementName

County/Municipal/Rural

FunctionalObject: Transit Center Paratransit Operations

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Element: NITTEC Systems

NITTEC systems used for event management (incidents, construction, and special events) both highway and transit; performance measurement and analytics; travel time data collection; and the data fusion engine that creates a regional view of transportation system status (both roadway and transit).

FunctionalObject: TMC Traffic Information Dissemination

`TMC Traffic Information Dissemination` disseminates traffic and road conditions, closure and detour information, incident information, driver advisories, and other traffic-related data to other centers, the media, and driver information systems. It monitors and controls driver information system field equipment including dynamic message signs and highway advisory radio, managing dissemination of driver information through these systems.

FunctionalObject: Transit Center Paratransit Operations

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FunctionalObject: TIC Data Collection

`TIC Data Collection` collects transportation-related data from other centers, performs data quality checks on the collected data and then consolidates, verifies, and refines the data and makes it available in a consistent format to applications that support operational data sharing between centers and deliver traveler information to end-users. A broad range of data is collected including traffic and road conditions, transit data, emergency information and advisories, weather data, special event information, traveler services, parking, multimodal data, and toll/pricing data. It also shares data with other transportation information centers.

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ProjectName

NY 06.01-Travel Planning Applications 511NY

ElementName

NITTEC Systems

FunctionalObject: TIC Trip Planning

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FunctionalObject: TIC Traveler Telephone Information

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FunctionalObject: TIC Dynamic Ridesharing

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FunctionalObject: TMC Multi-Modal Coordination

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FunctionalObject: TIC Interactive Traveler Information

`TIC Interactive Traveler Information` disseminates personalized traveler information including traffic and road conditions, transit information, parking information, maintenance and construction information, multimodal information, event information, and weather information. Tailored information is provided based on the traveler's request in this interactive service.

Element: NYSDOT ITS Field Equipment

Field equipment operated and maintained by NYSDOT including traffic signals, lane control signals, dynamic message signs, CCTV, environmental sensor stations, and portable equipment.

FunctionalObject: Roadway Traffic Information Dissemination

`Roadway Traffic Information Dissemination` includes field elements that provide information to drivers, including dynamic message signs and highway advisory radios.

Element: NYSDOT Parking Monitoring Systems

NYSDOT parking space monitoring systems. Used in commercial vehicle and park-and-ride lots.

ProjectName

NY 06.01-Travel Planning Applications 511NY

ElementName

NYSDOT Parking Monitoring

FunctionalObject: Parking Coordination

`Parking Coordination` supports communication and coordination between equipped parking facilities and also supports regional coordination between parking facilities and traffic management systems. Coordination with traffic management supports local traffic control coordination in and around the parking facility and broader regional coordination. It also shares information with transit management systems and information providers to support multimodal travel planning, including parking reservations capabilities. Information including current parking availability, system status, and operating strategies are shared to enable local parking facility management that supports regional transportation strategies.

Element: NYSDOT Regional TMCs

NYSDOT Regional Traffic Management Centers.

FunctionalObject: TIC Data Collection

`TIC Data Collection` collects transportation-related data from other centers, performs data quality checks on the collected data and then consolidates, verifies, and refines the data and makes it available in a consistent format to applications that support operational data sharing between centers and deliver traveler information to end-users. A broad range of data is collected including traffic and road conditions, transit data, emergency information and advisories, weather data, special event information, traveler services, parking, multimodal data, and toll/pricing data. It also shares data with other transportation information centers.

FunctionalObject: TMC Traffic Information Dissemination

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FunctionalObject: TMC Multi-Modal Coordination

`TMC Multi-Modal Coordination` supports center-to-center coordination between the Traffic Management and Transit Management Centers. It monitors transit operations and provides traffic signal priority for transit vehicles on request from the Transit Management Center.

FunctionalObject: TIC Trip Planning

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Element: NYSDOT STICC

NYSDOT Statewide Transportation Information Coordination Center.

FunctionalObject: TIC Trip Planning

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FunctionalObject: TIC Data Collection

`TIC Data Collection` collects transportation-related data from other centers, performs data quality checks on the collected data and then consolidates, verifies, and refines the data and makes it available in a consistent format to applications that support operational data sharing between centers and deliver traveler information to end-users. A broad range of data is collected including traffic and road conditions, transit data, emergency information and advisories, weather data, special event information, traveler services, parking, multimodal data, and toll/pricing data. It also shares data with other transportation information centers.

FunctionalObject: TIC Dynamic Ridesharing

`TIC Dynamic Ridesharing` provides dynamic rideshare matches for eligible travelers, connecting riders and drivers for specific trips based on preferences. This ridesharing/ride matching capability also arranges connections to transit or other multimodal services for portions of a multi-segment trip that includes ridesharing. Reservations and advanced payment are also supported so that each segment of the trip may be confirmed.

FunctionalObject: TIC Interactive Traveler Information

`TIC Interactive Traveler Information` disseminates personalized traveler information including traffic and road conditions, transit information, parking information, maintenance and construction information, multimodal information, event information, and weather information. Tailored information is provided based on the traveler's request in this interactive service.

FunctionalObject: TMC Multi-Modal Coordination

`TMC Multi-Modal Coordination` supports center-to-center coordination between the Traffic Management and Transit Management Centers. It monitors transit operations and provides traffic signal priority for transit vehicles on request from the Transit Management Center.

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NYS DOT STICC

FunctionalObject: TMC Traffic Information Dissemination

`TMC Traffic Information Dissemination` disseminates traffic and road conditions, closure and detour information, incident information, driver advisories, and other traffic-related data to other centers, the media, and driver information systems. It monitors and controls driver information system field equipment including dynamic message signs and highway advisory radio, managing dissemination of driver information through these systems.

FunctionalObject: Transit Center Information Services

`Transit Center Information Services` collects the latest available information for a transit service and makes it available to transit customers and to Transportation Information Centers for further distribution. Customers are provided information at transit stops and other public transportation areas before they embark and on-board the transit vehicle once they are en route. Information provided can include the latest available information on transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, yellow pages, and special events. In addition to general service information, tailored information (e.g., itineraries) are provided to individual transit users.

FunctionalObject: Transit Center Multi-Modal Coordination

`Transit Center Multi-Modal Coordination` supports transit service coordination between transit properties and coordinates with other surface and air transportation modes. As part of service coordination, it shares schedule and trip information, as well as transit transfer cluster (a collection of stop points, stations, or terminals where transfers can be made conveniently) and transfer point information between Multimodal Transportation Service Providers, Transit Agencies, and ISPs. An interface to Traffic Management also supports demand management strategies.

FunctionalObject: Transit Center Paratransit Operations

`Transit Center Paratransit Operations` manages demand responsive transit services, including paratransit services. It supports planning and scheduling of these services, allowing paratransit and other demand response transit services to plan efficient routes and better estimate arrival times. It also supports automated dispatch of paratransit vehicles and tracks passenger pick-ups and drop-offs. Customer service operator systems are updated with the most current schedule information.

FunctionalObject: TIC Traveler Telephone Information

`TIC Traveler Telephone Information` services voice-based traveler requests for information that supports traveler telephone information systems like 511. It takes requests for traveler information, which could be voice-formatted traveler requests, dual-tone multi-frequency (DTMF)-based requests, or a simple traveler information request, and returns the requested traveler information in the proper format. In addition to servicing requests for traveler information, it also collects and forwards alerts and advisories to traveler telephone information systems.

Element: NYS DOT TSMO Information Broker

A statewide TSMO information exchange network

FunctionalObject: TIC Interactive Traveler Information

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FunctionalObject: TIC Dynamic Ridesharing

`TIC Dynamic Ridesharing` provides dynamic rideshare matches for eligible travelers, connecting riders and drivers for specific trips based on preferences. This ridesharing/ride matching capability also arranges connections to transit or other multimodal services for portions of a multi-segment trip that includes ridesharing. Reservations and advanced payment are also supported so that each segment of the trip may be confirmed.

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NYSDOT TSMO Information

FunctionalObject: TIC Data Collection

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Element: Private Traffic Data Services

Private Information Service Providers e.g. Apple, Google Maps, Waze, INRIX, HERE, and traffic data management systems such as MS2.

FunctionalObject: TIC Traveler Telephone Information

`TIC Traveler Telephone Information` services voice-based traveler requests for information that supports traveler telephone information systems like 511. It takes requests for traveler information, which could be voice-formatted traveler requests, dual-tone multi-frequency (DTMF)-based requests, or a simple traveler information request, and returns the requested traveler information in the proper format. In addition to servicing requests for traveler information, it also collects and forwards alerts and advisories to traveler telephone information systems.

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`TMC Traffic Information Dissemination` disseminates traffic and road conditions, closure and detour information, incident information, driver advisories, and other traffic-related data to other centers, the media, and driver information systems. It monitors and controls driver information system field equipment including dynamic message signs and highway advisory radio, managing dissemination of driver information through these systems.

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Private Traffic Data Services

FunctionalObject: TIC Data Collection

`TIC Data Collection` collects transportation-related data from other centers, performs data quality checks on the collected data and then consolidates, verifies, and refines the data and makes it available in a consistent format to applications that support operational data sharing between centers and deliver traveler information to end-users. A broad range of data is collected including traffic and road conditions, transit data, emergency information and advisories, weather data, special event information, traveler services, parking, multimodal data, and toll/pricing data. It also shares data with other transportation information centers.

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FunctionalObject: TIC Interactive Traveler Information

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Element: Private Transportation Network Companies

A TNC is a private business licensed to use a digital network to connect passengers to TNC drivers for prearranged trips.

FunctionalObject: Shared Use Account and Fee Management

`Shared Use Account and Fee Management` manages user accounts and payments at the Shared Use Transportation Center. It provides the back office functions that support payment reconciliation with links to financial institutions.

FunctionalObject: Shared Use Operations

`Shared Use Operations` provides shared use services for eligible travelers, connecting with travelers for specific trips or vehicle usage based on preferences. It also provides the traveler with information about the shared use vehicle (including location information) and provides access codes to either the traveler or directly to the vehicle. Reservations and advanced payment are also supported so that each segment of the shared use/ trip may be confirmed.

Element: Private Transportation Network Company Vehicles

TNC drivers vehicles.

FunctionalObject: Light Vehicle Access

`Light Vehicle Access` provides access to a shared use vehicle either remotely from a center or locally with a traveler device.

FunctionalObject: Light Vehicle Interactive Traveler Information

`Light Vehicle Interactive Traveler Information` provides drivers with personalized traveler information including traffic and road conditions, transit information, maintenance and construction information, multimodal information, event information, and weather information. The provided information is tailored based on driver requests. Both one-time requests for information and on-going information streams based on a submitted traveler profile and preferences are supported.

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Private Transportation

FunctionalObject: Light Vehicle Trip Planning and Route Guidance

`Light Vehicle Trip Planning and Route Guidance` includes the in-vehicle system that coordinates with a traveler information center to provide a personalized trip plan to the driver. The trip plan is calculated by the Transportation Information Center (TIC) based on preferences and constraints supplied by the driver and provided to the driver for confirmation. Reservations and advanced payment may also be processed to confirm the trip plan. Coordination with the TIC may continue during the trip so that the route plan can be modified to account for new information. Many equipment configurations are possible including in-vehicle systems that provide a basic trip plan to the driver as well as more sophisticated systems that can provide turn by turn guidance to the driver along the route.

Element: Private Travelers Personal Computing Devices

Personal computing devices such as smart phones, tablets, and laptops, and home or office personal computers.

FunctionalObject: Personal Shared Use Planning

`Personal Shared Use Planning` provides a personalized connection to arrange person trips that include some kind of shared mobility (e.g., car-sharing, bike-sharing). The shared use plan is calculated based on preferences and constraints supplied by the traveler and provided to the traveler for confirmation. Many equipment configurations are possible including systems that provide a basic trip plan to the traveler as well as more sophisticated systems that can provide transition by transition guidance to the traveler along a multi-modal route with transfers. Devices represented by this functional object include desktop computers at home, work, or at major trip generation sites, plus personal devices such as tablets and smart phones.

FunctionalObject: Personal Trip Planning and Route Guidance

`Personal Trip Planning and Route Guidance` provides a personalized trip plan to the traveler. The trip plan is calculated based on preferences and constraints supplied by the traveler and provided to the traveler for confirmation. Coordination may continue during the trip so that the route plan can be modified to account for new information. Many equipment configurations are possible including systems that provide a basic trip plan to the traveler as well as more sophisticated systems that can provide transition by transition guidance to the traveler along a multi-modal route with transfers. Devices represented by this functional object include desktop computers at home, work, or at major trip generation sites, plus personal devices such as tablets and smart phones.

FunctionalObject: Personal Interactive Traveler Information

`Personal Interactive Traveler Information` provides traffic information, road conditions, transit information, yellow pages (traveler services) information, special event information, and other traveler information that is specifically tailored based on the traveler's request and/or previously submitted traveler profile information. It also supports interactive services that support enrollment, account management, and payments for transportation services. The interactive traveler information capability is provided by personal devices including personal computers and personal portable devices such as smart phones.

Element: TRANSCOM Systems

TRANSCOM system used for event management (incidents, construction, and special events) both highway and transit; performance measurement and analytics; travel time data collection; and the data fusion engine that creates a regional view of transportation system status (both roadway and transit).

FunctionalObject: Transit Center Paratransit Operations

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TRANSCOM Systems

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