Metropolitan Intelligent Transportation Systems (ITS) Infrastructure 2010 Transit Management Survey

Agency Characteristics

1.a. County where agency headquarters is located: [   ]

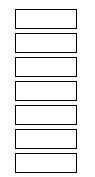1.b. Other counties in service area: [   ]

Transit Vehicle Characteristics

	2. Total number of vehicles used in revenue service:	3. Total number of vehicles equipped with Automated Vehicle Location (AVL):	4. Total number of vehicles with real-time monitoring of vehicle components:
Fixed Route Bus:	[ ]	[ ]	[ ]
Heavy or Rapid Rail:	[ ]	[ ]	[ ]
Light Rail:	[ ]	[ ]	[ ]
Paratransit:	[ ]	[ ]	[ ]
Demand Responsive:	[ ]	[ ]	[ ]
Commuter Rail:	[ ]	[ ]	[ ]
Ferry Boat:	[ ]	[ ]	[ ]

	5. Total number of vehicles where automated dispatching or control software is available:	6. Total number of vehicles equipped with mobile data terminals:	7. Total number of vehicles that have Automatic Passenger Counters (Do not include registering fareboxes):
Fixed Route Bus:	[ ]	[ ]	[ ]
Heavy or Rapid Rail:	[ ]	[ ]	[ ]
Light Rail:	[ ]	[ ]	[ ]
Paratransit:	[ ]	[ ]	[ ]
Demand Responsive:	[ ]	[ ]	[ ]
Commuter Rail:	[ ]	[ ]	[ ]
Ferry Boat:	[ ]	[ ]	[ ]

Transit Signal Priority

8. Number of Fixed Route Buses that have or will have traffic signal priority capability: [   ]

9. Number of Fixed Route Buses that have or will have traffic signal pre-emption capability: [   ]

10. Number of Light Rail vehicles that have or will have traffic signal priority capability: [   ]

11. Number of Demand Responsive vehicles that have or will have traffic signal priority capability: [   ]

12. Number of Paratransit vehicles that have or will have traffic signal priority capability: [   ]

13. If your agency does not use its transit signal priority capability, please tell us why:

[   ]

Ramp Meter Signal Priority

14. Number of Fixed Route Buses with ramp meter signal priority capability: [   ]

15. Number of Demand Responsive vehicles with ramp meter signal priority capability: [   ]

16. Number of Paratransit vehicles with ramp meter signal priority capability: [   ]

17. If your agency does not use its ramp metering capability, please tell us why:

Vehicles Operated As Vehicle Probes

18. Does your agency operate any vehicles as probes to collect travel time, speed or road condition information?

    ☐ Yes

    ☐ No – SKIP TO Q.23

19. Total number of Fixed Route Buses operated as vehicle probes to collect travel time, speed, and conditions on freeways: ☐

20. Total number of Fixed Route Buses operated on vehicle probes to collect travel time, speed, and conditions on arterials: ☐

21. Total number of Water Craft / Ferries operated as vehicle probes to collect travel time, speed, and conditions on waterways: ☐

22. Does your agency share vehicle probe data with any other agency?

    ☐ Yes, select the agencies (Check all that apply)

        ☐ Freeway Management

        ☐ Arterial Management

        ☐ Other Transit

        ☐ Other (please specify): _____

    ☐ No

Organized Regional Incident Management Program

23. Does your agency's operators or dispatchers report traffic incidents (e.g., stalled vehicles, crashes)?

    ☐ Yes

    ☐ No

Electronic Fare Payment

	24. Vehicles/Stations equipped with Magnetic Stripe Readers:	25. Vehicle/Stations equipped with Smart Card Readers (with embedded computer chip):
Fixed Route Buses:		
Heavy or Rapid Rail Stations:		
Light-Rail Stations:		
Demand Responsive Vehicles:		
Paratransit Vehicles:		
Commuter Rail Stations:		
Ferry Boat Landings:		

26. Does your agency electronically store collected fare payment data for use in route and service planning?

    ☐ Yes

    ☐ No

27. Which of the following capabilities are available through the electronic fare payment system deployed by your agency? (Check all that apply)

   ☐ The electronic fare payment system is integrated across modes within my agency: (Check all modes that apply):

      ☐ Train

      ☐ Bus

      ☐ Commuter Rail

      ☐ Ferry

   ☐ The electronic fare payment system is integrated with other transit agencies

   ☐ The electronic fare payment system is integrated with parking payment systems

   ☐ The electronic fare payment system is integrated with other toll collection systems in this metropolitan area (e.g., road tolls)

28. Please indicate the types of electronic fare payment system operated by your agency: (Check all that apply)

   ☐ Closed loop, proprietary system

   ☐ Open loop, bank card system

   ☐ Other (please specify): _____

Travel Reporting

29. Has your agency deployed a web-based trip planner to assist travelers in making trip related decisions?

   ☐ Yes, please answer the following questions about your agency's web- based trip planner:

	Yes	No
a. Does this tool incorporate multiple transit systems?	☐	☐
b. Does this tool incorporate modes other than transit (e.g., walking, biking, auto)?	☐	☐
c. Does this tool incorporate real-time traffic condition information?	☐	☐

   ☐ No

30. Does your agency have an agreement with a private vendor to distribute real-time transit information to travelers?

   ☐ Yes

   ☐ No

	31. Methods used to disseminate Transit Routes, Schedules, and Fare Information to the public:	32. Methods used to disseminate Real-time Transit schedule adherence or Arrival and Departure Times to the public:
Internet	☐	☐
Email or alert to desktop	☐	☐
Email or alert to mobile device such cell phone or smart phone	☐	☐
511	☐	☐
Other (non-511) telephone systems (including customer service centers)	☐	☐
Dynamic Message Signs In-station	☐	☐
Dynamic Message Signs In-vehicle	☐	☐
Dynamic Message Signs At stop	☐	☐
Kiosks	☐	☐
Other: _____	☐	☐

33. Total number of bus stops, rail stations, and bus depots:

Bus Stops [ ]

Rail Stations [ ]

Bus Depots [ ]

34. Total number of bus stops, rail stations, and bus depots where automated or dynamic traveler information (e.g., schedule and system information) is electronically displayed to the public:

Bus Stops [ ]

Rail Stations [ ]

Bus Depots [ ]

35. Total number of fixed route buses that electronically display automated or dynamic traveler information (e.g., schedule and system information) to the public: [ ]

Safety and Security

36. Total number of fixed route buses with audio or video surveillance to enhance security: [ ]

37. Total number of facilities with audio or video surveillance to enhance security:

Bus Stops [ ]

Rail Stations [ ]

Bus Depots [ ]

38. Total number of vehicles that can be remotely shut down via wireless communication:

Fixed Route Bus [ ]

Heavy or Rapid Rail [ ]

39. Does your agency use advanced video technologies to re-create crashes for accident review?

☐ Yes

☐ No

Transportation Demand Management

40. Does your agency use data from technologies such as AVL/CAD systems and automatic passenger counter systems, to assist in planning?

☐ Yes

☐ No

41. Does your agency employ automated vehicle location, combined with dispatching and reservation technologies to provide flexible routing and scheduling?

☐ Yes

☐ No

42. Does your agency employ vehicle monitoring and communication technologies to facilitate the coordination of passenger transfers between vehicles or between transit systems?

☐ Yes

☐ No

43. Does your agency provide ride sharing and carpool matching services?

☐ Yes

☐ No

44. Does your agency operate a transportation management travel coordination center and/or participate in a brokerage service that coordinates travel requests or performs vehicle dispatching, or billing for multiple agencies (e.g., social service agencies, Health and Human Services, other transit agencies)?

☐ Yes, operates a transportation management travel coordination center

Which of the following functions does this center perform? (Check all that apply)

☐ Coordinates travel information

☐ Performs vehicle dispatching

☐ Performs billing

☐ Other (please describe): _____

☐ Yes, participates in a brokerage service

☐ No

Communications Technology

45. What type of radio system does your agency have? (Check all that apply)

☐ Radio system is Digital

☐ Radio system is Analog

☐ Radio system is Regular

☐ Radio system is Trunked

46. For each of the following communications updates, please indicate whether you have implemented it, whether you are planning to implement it, or whether you have no plans to implement.

	Implemented	Plan to Implement	No Plans to Implement
a. Updating your 150 or 450 MHz to a digital system?	☐	☐	☐
b. Converting to a dedicated 800 MHz system?	☐	☐	☐
c. Joining an area wide 800 MHz system?	☐	☐	☐

47. Do you communicate with public safety agencies?

☐ Yes, what methods of communication do you use? (Check all that apply)

☐ A partner in a joint interoperable system

☐ Have a dedicated radio channel

☐ Other (please specify): _____

☐ No, are you considering adding the capability of interoperability with public safety agencies? (Check all that apply)

☐ Yes, by use of a communication switch (such as the ACU-1000 or other brand)

☐ Yes, by becoming part of an area-wide interoperable system

☐ Other (please specify): _____

☐ No plans to add capability

48. Does your agency use a radio system either in range VHF 150 MHz - 174 MHz OR in range UHF 421 MHz -512 MHz?

☐ Yes, does your agency or your agency's license holder operate under FCC license?

☐ Yes

☐ No

☐ No

49. Is your agency aware of narrowbanding and rebanding requirements that will become effective January 1, 2013?

☐ Yes

☐ No

50. Does your system meet the FCC Narrowbanding Requirement (12.5 KHz channel capable)?

☐ Yes

☐ No, do you plan to assess and procure Narrowband capable equipment?

☐ Yes

☐ No

Corridor Management

51. Have you identified corridors for the purpose of integrating operations across freeways, major arterials, and/or public transit services?

☐ Yes

a. Please describe the corridor(s):

b. With which agencies do you coordinate operations related to the corridor?

☐ No (GO TO QUESTION 53)

52. What type of services are currently coordinated across the corridor, and what type of services are envisioned for the future? (Check all that apply)

	Currently Coordinated	Future
Cross jurisdictional traffic signal coordination	☐	☐
Traffic incident management	☐	☐
Real-time transfer of performance information	☐	☐
Electronic toll tags used by other toll road operators	☐	☐
Traffic responsive signal timing	☐	☐
Ramp control	☐	☐
Inclement weather traffic control strategies, treatments, warnings, or road closures	☐	☐
Transit operations	☐	☐
Planned special events	☐	☐
Coordinate traffic signal operations with freeway congestion or value pricing	☐	☐
Other (please specify):	☐	☐

Data Collection and Archiving

53. Does your agency have an archived data management system?

☐ Yes

☐ No (GO TO QUESTION 58)

54. What information does your agency collect/archive in real time? (Check all that apply)

☐ Vehicle time and location

☐ Vehicle diagnostics and health

☐ Passenger count

☐ Trip Itinerary planning records

☐ Passenger information

☐ Vehicle monitoring status

☐ Road conditions (e.g., wet, icy, etc.)

☐ Emergency vehicle signal preemption events

☐ Transit vehicle signal priority events

☐ Weather conditions (e.g., snow, fog, rain, etc.)

☐ Incidents

☐ Other (please specify):

☐ Do not collect/archive data in real time

55. What information does your agency collect/archive electronically? (Check all that apply)

☐ Route designations (snow emergency, etc.)

☐ Current road work zones for transit

☐ Scheduled road work zones for transit

☐ Intermodal (air, rail, water) connections

☐ Emergency/evacuation routes and procedures

☐ Highway operations coordination information

☐ Transit operations coordination information

☐ Other (please specify):

☐ Do not collect/archive information electronically

56. What are the data used for? (Check all that apply)

☐ Operation planning/analysis

☐ Construction impact determination

☐ Capital planning/analysis

☐ Incident detection algorithm development

☐ Roadway impact analysis

☐ Accident prediction models

☐ Dissemination to the public

☐ Traffic management

☐ Measurement of performance

☐ Safety analysis

☐ Other (please specify):

57. Are any data provided to third parties so they can create transit traveler information applications?

    ☐ Yes, check all that apply:

        ☐ My agency has developed data sharing boilerplate agreements

        ☐ My agency places restrictions on the data provided outside the agency (please describe):

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        ☐ Applications have been developed by third party application developers (please describe):

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    ☐ No

ITS Standards

58. Please check any of the following transit-related ITS standards implemented by your agency: (Check all that apply)

    ☐ Contactless Fare Media System Standard (CFMS)

    ☐ Traffic Management Data Dictionary (TMDD)

    ☐ Message Sets for External Traffic Management Center Communications

    ☐ Standards for Transit Communications Interface Profiles APTA TCIP-S-001 3.0.0

    ☐ Standard for Traffic Incident Management Message Sets for Use by Emergency Management Centers IEEE 1512.1-2006

    ☐ Standard for the Interface Between the Rail Subsystem and the Highway Subsystem at a Highway Rail Intersection IEEE 1570-2002

    ☐ Serial Data Communications Between Microcomputer Systems in Heavy-Duty Vehicle Applications SAE J1708

    ☐ Standard for ATIS Message Set Delivered Over Reduced Bandwidth Media SAE J2369

    ☐ ITS In-Vehicle Message Priority SAE J2395

    ☐ My agency has not implemented any of these standards

ITS Funding

59. Does your agency have a separate budget for ITS?

    ☐ Yes, please indicate whether you track the budget separately for each of the following categories: (Check all that apply)

        ☐ ITS Deployments

        ☐ ITS Operations and Maintenance

        ☐ Traffic Management or Operations Center

        ☐ Other (please specify):

        ☐ Do not track categories separately

    ☐ No

ITS Purchase Decisions

60. Please rate the importance of each of the following factors to your agency's decision to purchase ITS technologies:

Factor	Not at all Important	Not very Important	Neutral	Somewhat Important	Very Important
Price of equipment	☐	☐	☐	☐	☐
Public/constituent's Involvement	☐	☐	☐	☐	☐
Funding/grant availability	☐	☐	☐	☐	☐
Mobility benefits (e.g., to address congestion)	☐	☐	☐	☐	☐
Safety benefits	☐	☐	☐	☐	☐
Environmental benefits	☐	☐	☐	☐	☐
Integration with other agencies	☐	☐	☐	☐	☐
Integration with your current technologies	☐	☐	☐	☐	☐
TCIP compliant	☐	☐	☐	☐	☐
Already used by other agencies	☐	☐	☐	☐	☐
Other (please specify): _____	☐	☐	☐	☐	☐

61. Does your agency have any plans to invest in new ITS technology or to expand current ITS coverage in 2010 through 2013?

☐ Yes (Check all that apply) _____

    ☐ Invest in new ITS, please describe: _____

    ☐ Expand current ITS coverage

☐ No

Benefits of Technologies

62. Based on your agency's experience, please rate the benefits of the following technologies:

Technology	No Benefit 1	2	Moderate Benefit 3	4	Major Benefit 5	No Experience
Automatic Vehicle Location	☐	☐	☐	☐	☐	☐
Communications	☐	☐	☐	☐	☐	☐
Traveler Information	☐	☐	☐	☐	☐	☐
Data Management – GIS	☐	☐	☐	☐	☐	☐
Computer Aided Dispatch and Scheduling	☐	☐	☐	☐	☐	☐
Maintenance Tracking	☐	☐	☐	☐	☐	☐
Electronic Fare Payment	☐	☐	☐	☐	☐	☐
Security Cameras	☐	☐	☐	☐	☐	☐
Weather Information System	☐	☐	☐	☐	☐	☐
Automatic Passenger Counters	☐	☐	☐	☐	☐	☐
Transit Signal Priority	☐	☐	☐	☐	☐	☐

63. Please use the space below to provide any additional comments regarding your agency's deployment, operations or maintenance of ITS. (Please be as specific as possible when commenting on particular ITS technologies.)