Tracking the Deployment of the Integrated Metropolitan ITS Infrastructure in Dallas, Fort Worth

FY99 Results

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Part 1 - Background and Purpose

In January 1996, Secretary Peña set a goal of deploying the integrated metropolitan Intelligent Transportation System (ITS) infrastructure in 75[1] of the nation's largest metropolitan areas by 2006:

> *"I'm setting a national goal: to build an intelligent transportation infrastructure across the United States to save time and lives, and improve the quality of life for Americans. I believe that what we do, we must measure . . . Let us set a very tangible target that will focus our attention . . . I want 75 of our largest metropolitan areas outfitted with a complete intelligent transportation infrastructure in 10 years."*[2]
>
> *-- Secretary Peña, 1996*

In 1997, the U.S. Department of Transportation initiated an effort to track progress toward fulfillment of this goal by conducting a survey of deployment in the nation's largest metropolitan areas. Traditionally, the product of a transportation infrastructure investment consists of a fixed asset such as a highway, bridge, or public transportation vehicle developed, constructed, or purchased by a single agency. Tracking the level of deployment for such traditional fixed assets can be accomplished by simply counting the number of such assets deployed. Measuring the deployment of the metropolitan ITS infrastructure is more complex because it consists of a set of systems, often deployed by multiple agencies, and integrated through a combination of complex institutional and technical arrangements. In brief, it is often difficult to simply count the number of systems deployed without first devising a measurement approach that captures the essential features of such systems in a consistent fashion across many deployment environments.

In order to track progress toward fulfillment of the Secretary's goal for deployment, the U.S. Department of Transportation ITS Joint Program Office developed the metropolitan ITS deployment tracking methodology. This methodology tracks deployment of the nine components that make up the Metropolitan ITS infrastructure: Freeway Management; Incident Management; Arterial Management; Emergency Management; Transit Management; Electronic Toll Collection; Electronic Fare Payment; Highway-Rail Intersections; and Regional Multimodal Traveler Information. Through a set of indicators tied to the major functions of each component, the level of deployment is tracked for the nation's largest metropolitan areas. In addition, the integration links between agencies operating the infrastructure are also tracked. The details of

[1] Since Secretary Peña's speech, the number of metropolitan areas that DOT will measure has been increased from 75 to 78. However, to maintain reporting consistency across the 10-year goal period, this report considers only the original 75 metropolitan areas.

[2] Excerpt of a speech delivered by Secretary of Transportation Peña at the Transportation Research Board in Washington, DC on January 10, 1996.

the methodology are explained elsewhere.[3]

During the summer and fall of 1999, the U.S. DOT undertook a new data collection effort for the purpose of examining ITS deployment progress in the nation's largest metropolitan areas. The Dallas, Fort Worth metropolitan area was among the areas surveyed in 1997 and again in 1999. This report presents the results of the 1999 survey efforts and compares the results of the 1997 survey against those observed in 1999. The overall response rate for the surveys administered in the Dallas, Fort Worth region was 94% in 1997 and 87% in 1999.

Part 2 contains a summary of the 1999 survey results, and Part 3 provides a comparison of 1999 survey results and the 1997 survey results.

The report also contains a set of appendices containing a map of the survey area, the list of local contacts surveyed along with a status of their response to the survey and a summary of the data collected from the surveys.

Agencies are encouraged to review the data presented in this report for completeness and accuracy and to direct any comments or corrections to the data provided to the contacts listed below:

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[3] Additional Resources: "Measuring ITS Deployment and Integration" (Electronic Document Number: 4372). U.S. Department of Transportation, Joint Program Office for Intelligent Transportation Systems, 400 Seventh St., SW (HVH-1), Washington, DC 20590, Phone: 202-366-9536, Fax: 202-366-3302, Web: http://www.its.dot.gov.

Part 2 - Summary 1999 Survey Results

Deployment indicators have been developed for two broad areas of interest: (1) the individual components, including their basic functions and characteristics and (2) integration of components, including how these components work together to provide coordinated regional service. As mentioned earlier, these indicators are expressed as percentages of the possible deployment opportunity and not necessarily what should be deployed based on local needs. Requirements for deployment and integration between each component will vary based on local conditions and cannot be assigned without extensive coordination with individual metropolitan areas.

The following two figures portray the surrogate indicators for each of the nine components in Dallas, Fort Worth and the same indicators at the national level. These are judged to be the single best representative of a component and are being used as summary indicator for component. The summary indicators are expressed as a percentage; however, because deployment goals have yet to be established, these indicators should not be read as a comparison of what is deployed versus eventual deployment goals. Instead, they only reflect what is deployed compared to full market saturation (i.e., opportunity for deployment).

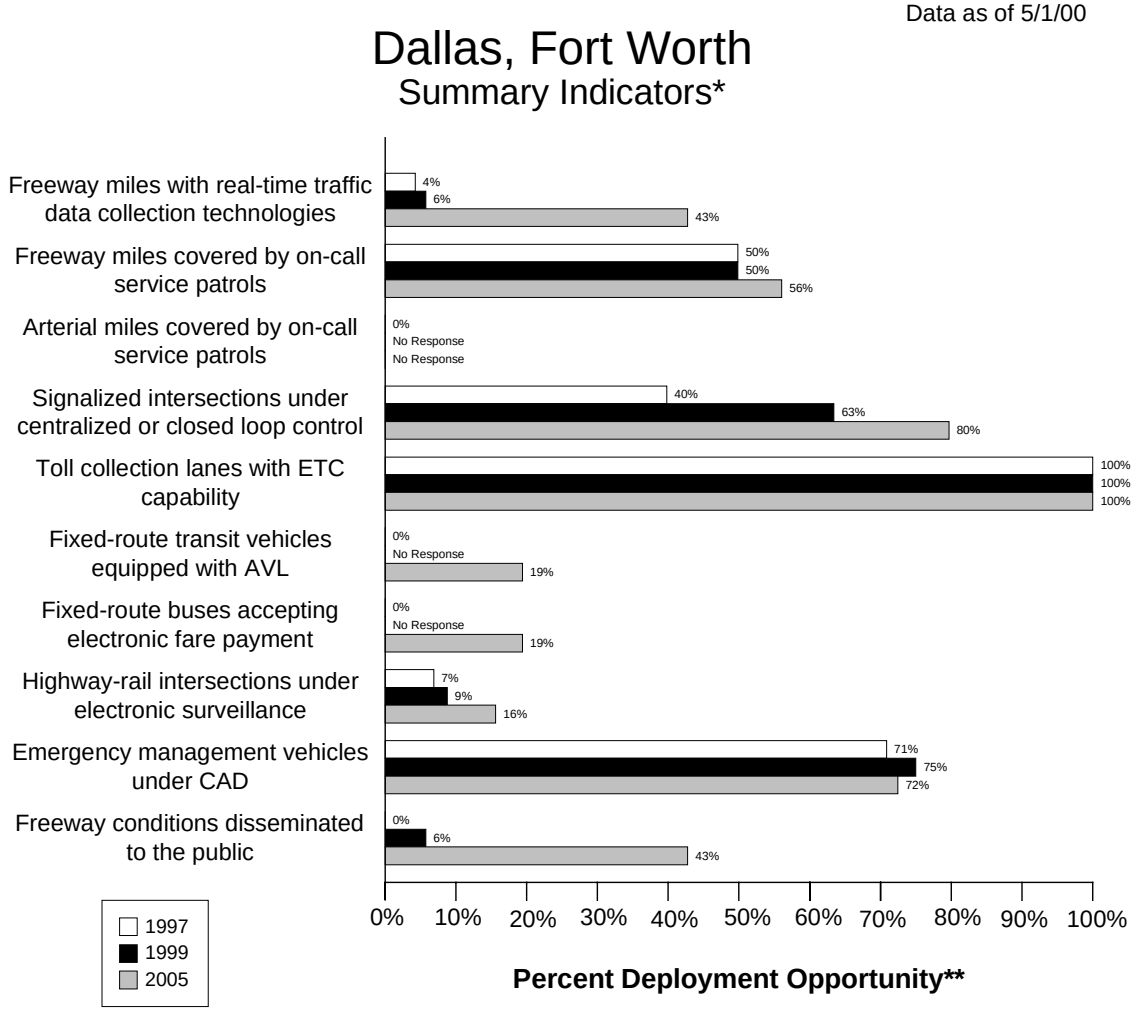
Each component indicator was selected to reflect a critical function of the individual components. For example, in the case of Freeway Management, three basic functions were defined: surveillance, traffic control, and information display. The three indicators developed to reflect these functions are: percentage of freeway centerline miles under electronic surveillance (surveillance function), percentage of freeway entrance ramps managed by ramp meters (traffic control function), and percentage of freeway centerline miles covered by permanent VMS, HAR, or in-vehicle signing (information display function). The indicators are surrogates that do not necessarily reflect the full breadth of metropolitan ITS deployment activity.

A critical aspect of ITS that provides much of its capability is the integration of individual components to form a unified regional traffic control system. Individual ITS components routinely collect information that is used for purposes internal to that component. For example, the Arterial Management component monitors arterial conditions to revise signal timing and to convey these conditions to travelers through such technologies as variable message signs and highway advisory radio. Other ITS components can make use of this information in formulating their control strategies. For example, Transit Management may alter routes and schedules based on real-time information on arterial traffic conditions, and Freeway Management may alter ramp metering or diversion recommendations based on the same information.

As with the component indicators, definitions for inter- and intra-component integration were developed for each component, and indicators, derived from these definitions, were produced for each component. A total of 34 individual integration indicators was specified and is portrayed in the third figure which follows. Each integration indicator has been assigned a number and an origin/destination path from one ITS infrastructure component to another. For example, the

integration of information from the Freeway Management component to the Regional Multimodal Traveler Information component is identified by the number "10."

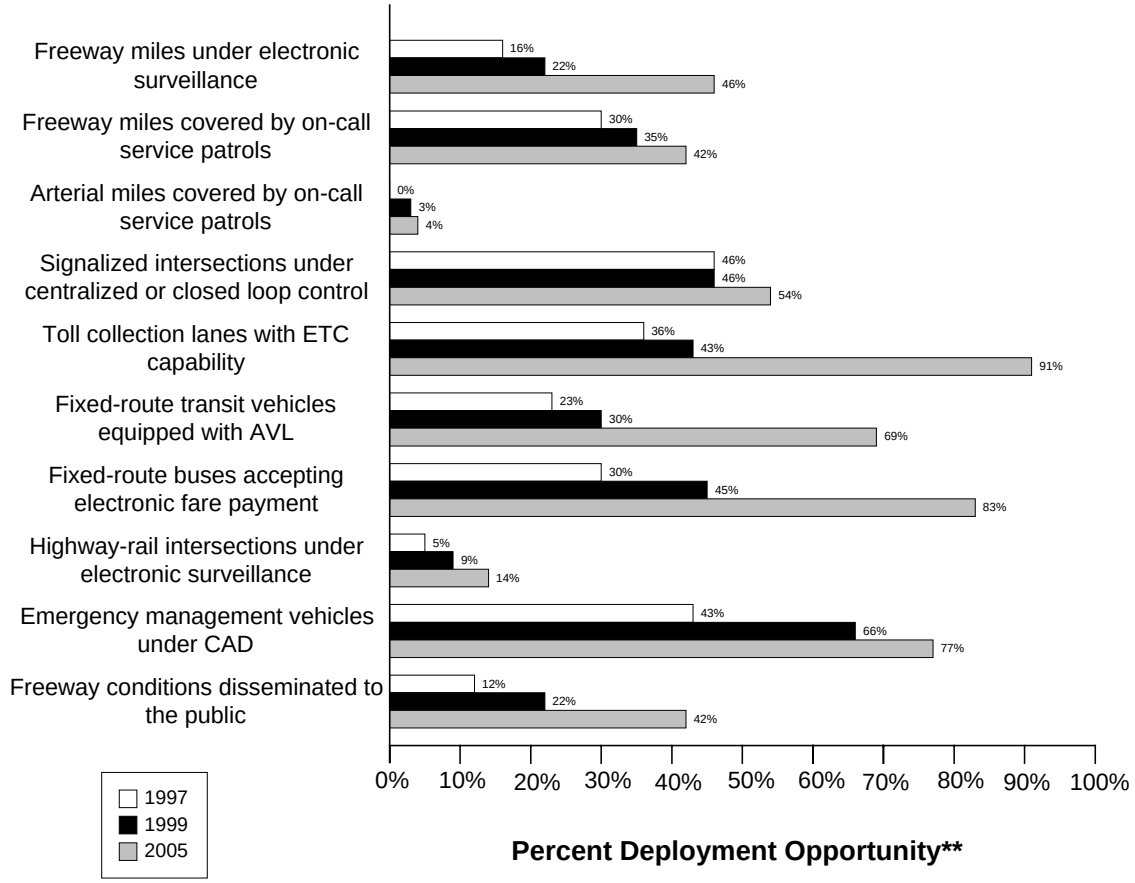
Data as of 5/1/00



* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

Data as of 5/1/00

National
Summary Indicators*



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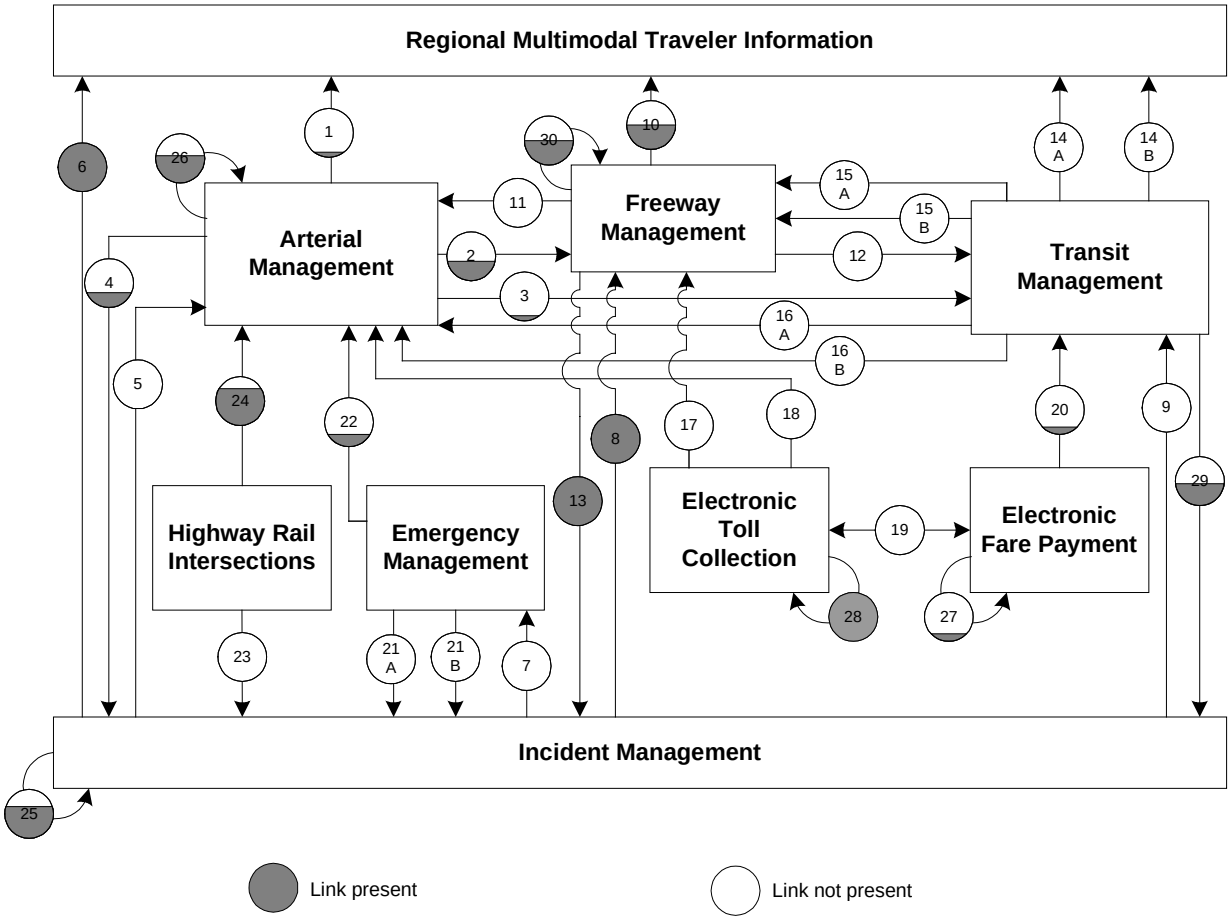
Dallas, Fort Worth Integration Links



Note: Shading indicates the value of the link. For example a circle half shaded equals 50%

Link	Description	Link	Description
1	Arterial Management to Regional Multimodal Traveler Information	2	Arterial Management to Freeway Management
3	Arterial Management to Transit Management	4	Arterial Management to Incident Management
5	Incident Management to Arterial Management	6	Incident Management to Regional Multimodal Traveler Information
7	Incident Management to Emergency Management.	8	Incident Management to Freeway Management
9	Incident Management to Transit Management	10	Freeway Management to Regional Multimodal Traveler Information
11	Freeway Management to Arterial Management	12	Freeway Management to Transit Management

Link	Description	Link	Description
13	Freeway Management to Incident Management	14a 14b	Transit Management to Regional Multimodal Traveler Information (static route information) Transit Management to Regional Multimodal Traveler Information (schedule adherence information)
15a 15b	Transit Management to Freeway Management Transit Management to Freeway Management (transit vehicle probes)	16a 16b	Transit Management to Arterial Management Transit Management to Arterial Management (transit vehicle probes)
17	Electronic Toll Collection to Freeway Management (ETC equipped probes)	18	Electronic Toll Collection to Arterial Management (ETC equipped probes)
19	Electronic Fare Payment and Electronic Toll Collection	20	Electronic Fare Payment to Transit Management
21a 21b	Emergency Management to Incident Management (incident notification) Emergency Management to Incident Management (incident clearance)	22	Emergency Management to Arterial Management
23	Highway-rail intersections to Incident Management (crossing status)	24	Highway-rail intersections to Arterial Management (crossing status)
25	Incident Management intra component	26	Arterial Management intra component
27	Electronic Fare Payment intra component.	28	Electronic Toll Collection intra component
29	Transit Management to Incident Management (incident reporting)	30	Freeway Management intra component

Part 3 - Detailed 1999 Survey Results

The following figures and tables summarize the complete set of component and integration indicators developed for the Dallas, Fort Worth metropolitan area. The figures summarizing the component indicators consist of a bar chart portraying the deployment levels for 1997, 1999, and 2005 accompanied by detailed tables of the data used to calculate each component indicator value (*Num* stands for numerator and *Den* stands for denominator; blank space indicates that no response was received.)

Example: Calculating Component Indicators for Freeway Management

Consider a metropolitan area with 100 miles of freeway and 25 freeway entrance ramps. The area has no ramp meters, 10 freeway miles for which traffic data are collected electronically, and 5 freeway miles, which are covered by highway advisory radio.

The component indicator for electronic surveillance is calculated as (10/100) or 10%.

The component indicator for ramp meter control is calculated as (0/25) or 0%.

The component indicator for HAR coverage is calculated as (5/100) or 5%.

The summary indicator for the metropolitan area is calculated as (10%+0%+5%)/3 = 5%.

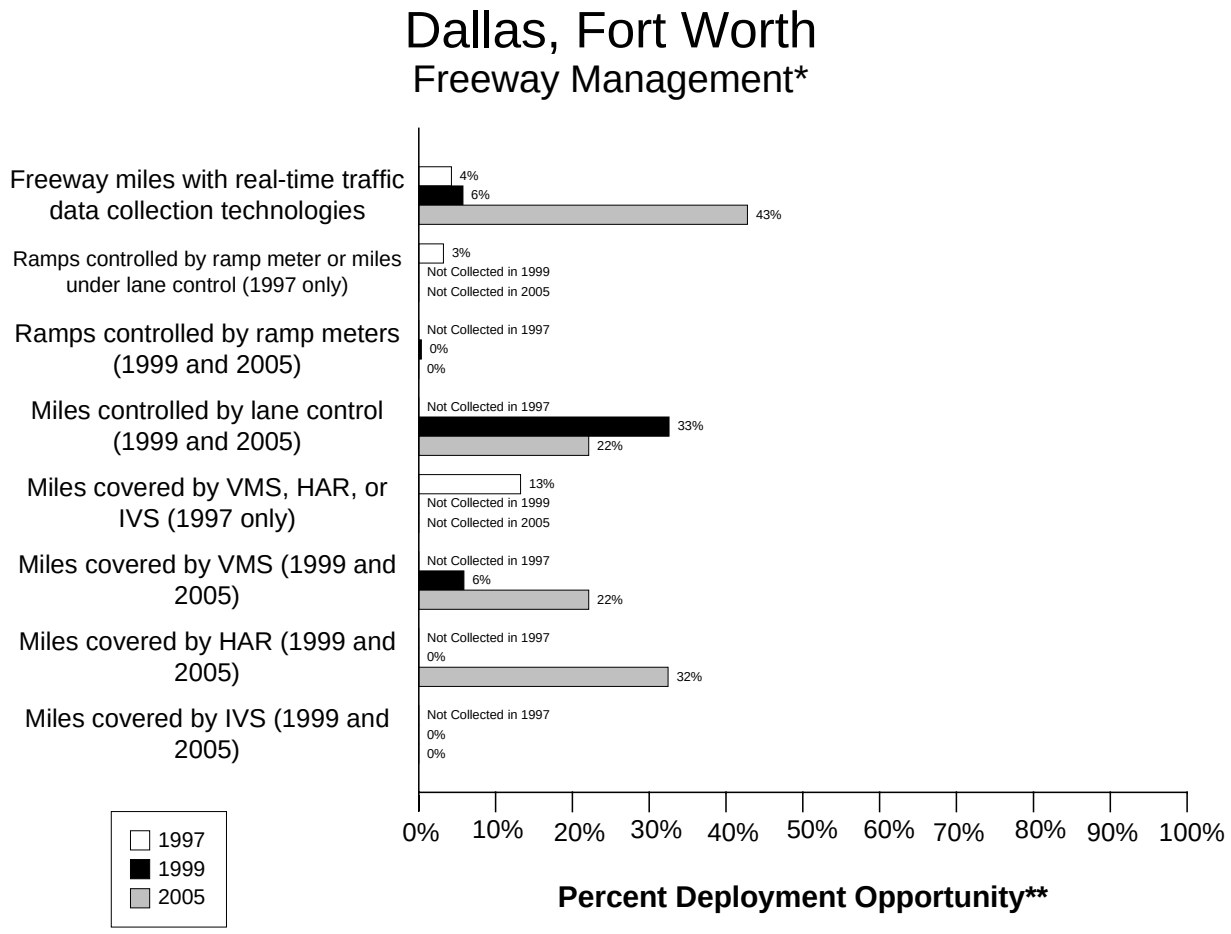
The figures summarizing the integration indicators consist of a diagram for each of the nine metropolitan ITS components portraying the integration level for 1999 (*italic*) and 2005 (**bold**), accompanied by tables providing an explanation of the data and calculations performed to develop each integration indicator value for 1999 and 2005. Each diagram portrays the proportion of agencies providing information to a component (e.g., the flow of incident information from Incident Management to Freeway Management) and the proportion of agencies providing information from one component to other components (e.g., the flow of freeway travel condition information from Freeway Management to Arterial Management).

Example: Calculating Integration between Arterial Management and Regional Multimodal Traveler Information

Consider a metropolitan area with three arterial management agencies. One out of three provides information to the public using a Regional Multimodal Traveler Information Media (e.g., internet, kiosk, pager, etc...). The integration indicator is 1/3 or 33%.

Freeway Management Component Indicators

Data as of 5/1/00



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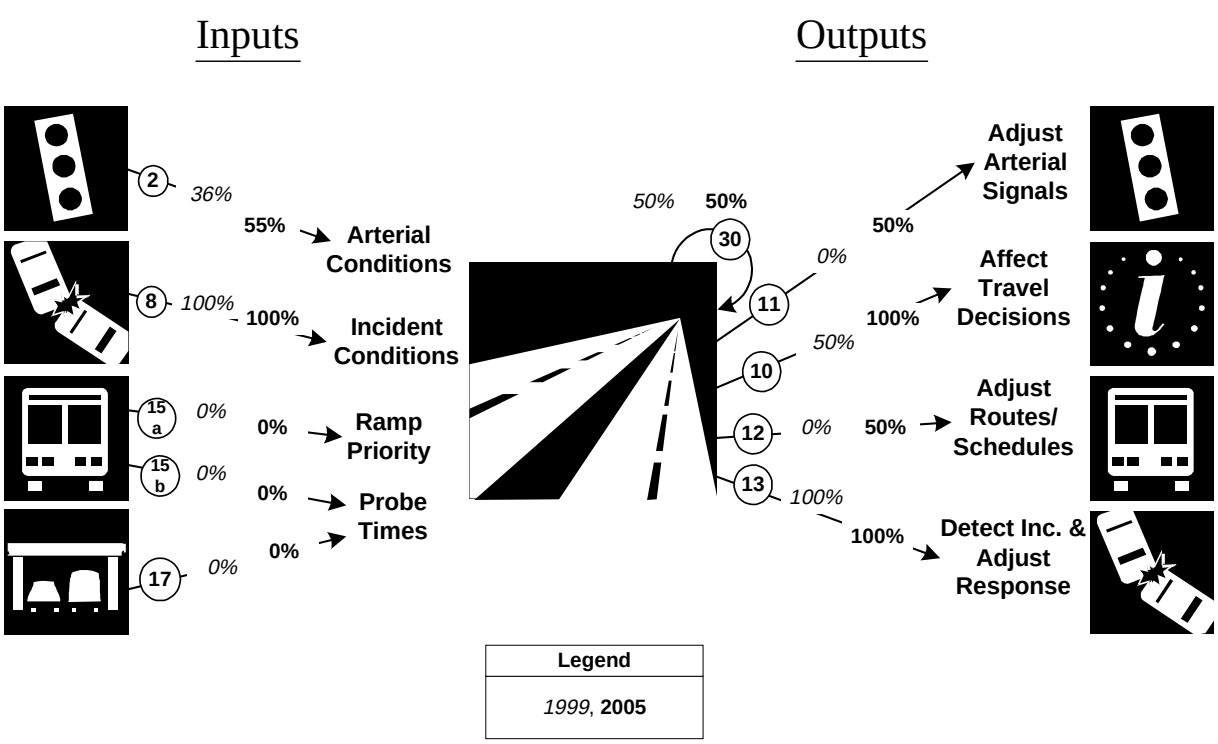
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Freeway centerline miles are under electronic surveillance for monitoring traffic flow	29	678	4%	39	678	6%	290	678	43%
Freeway entrance ramps are controlled by ramp meters or miles under lane control	22	678	3%						

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Freeway entrance ramps are controlled by ramp meters				5	1550	0%	0	1550	0%
Freeway centerline miles will be controlled by lane control				221	678	33%	150	678	22%
Freeway miles are covered by VMS, HAR, or IVS	90	678	13%						
Freeway miles are covered by VMS				40	678	6%	150	678	22%
Freeway miles are covered by HAR				0	678	0%	220	678	32%
Freeway miles are covered by IVS				0	678	0%	0	678	0%

Freeway Management Integration Indicators

Dallas, Fort Worth
Freeway Management Integration*



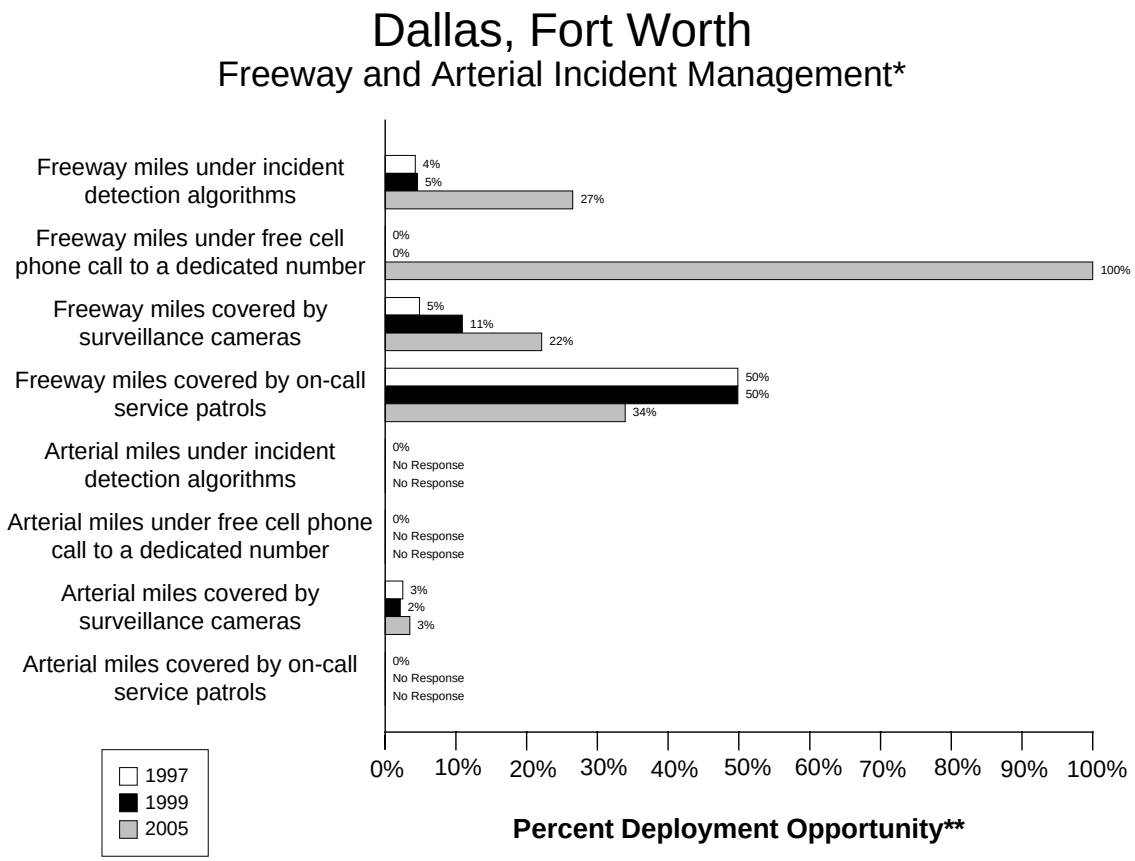
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
2. Arterial Management agencies sending information to Freeway Management	(4/ 11) 36%	(6/ 11) 55%
8. Incident Management agencies sending information to Freeway Management	(2/ 2) 100%	(2/ 2) 100%
15a. Transit management agencies with vehicles equipped with ramp meter priority	(0/ 7) 0%	(0/ 7) 0%
15b. Transit Management agencies with vehicles equipped as probes	(0/ 7) 0%	(0/ 7) 0%
17. Freeway Management agencies receiving freeway conditions from vehicle probes	(0/ 2) 0%	(0/ 2) 0%
30. Freeway Management agencies sending information to another Freeway Management agency	(1/ 2) 50%	(1/ 2) 50%
11. Freeway Management agencies sending information to Arterial Management	(0/ 2) 0%	(1/ 2) 50%

Link Description	1999	2005
10. Freeway Management agencies disseminating freeway conditions to the public	(1/ 2) 50%	(2/ 2) 100%
12. Freeway Management agencies sending freeway conditions to Transit Management	(0/ 2) 0%	(1/ 2) 50%
13. Freeway Management agencies sending freeway conditions to Incident Management	(2/ 2) 100%	(2/ 2) 100%

Incident Management Component Indicators

Data as of 5/1/00



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** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

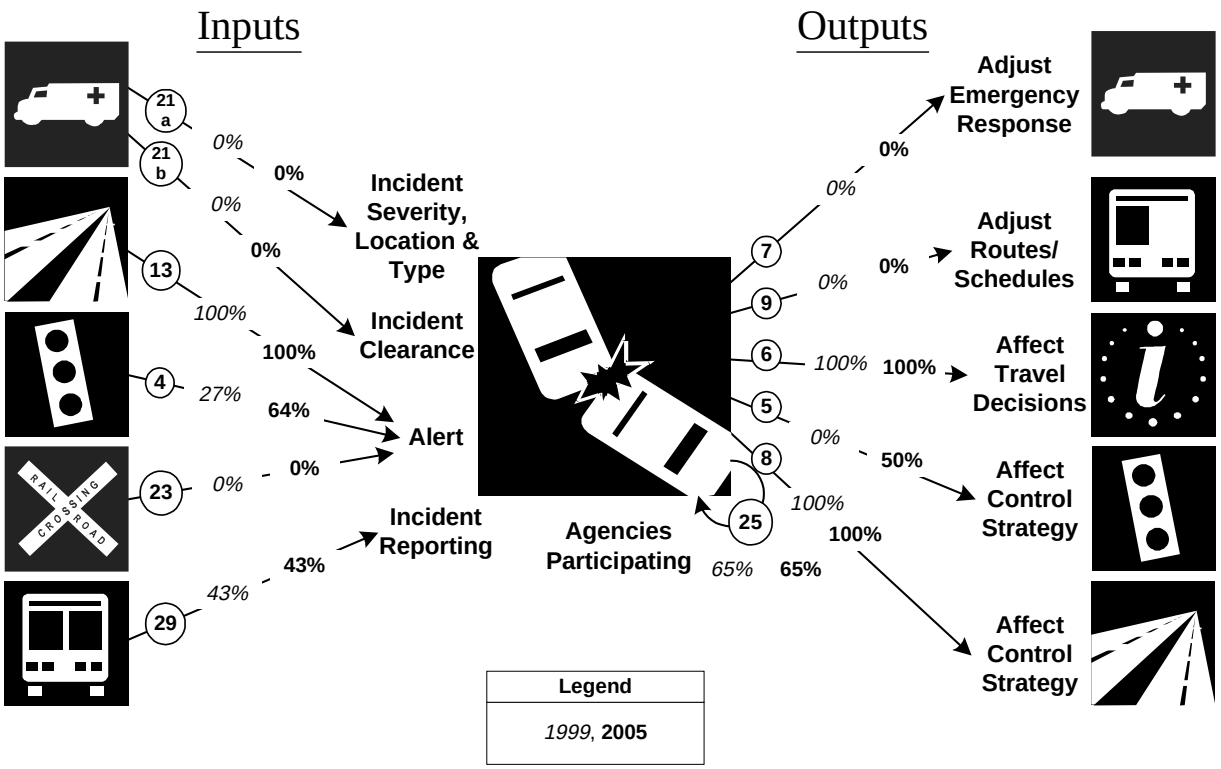
	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Freeway miles are covered by incident detection algorithms	29	678	4%	31	678	5%	180	678	27%
Freeway miles are covered by free cellular phone calls to a dedicated number	0	678	0%	0	678	0%	678	678	100%
Freeway miles are covered by surveillance cameras.	33	678	5%	74	678	11%	150	678	22%

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Freeway miles are covered by on-call publicly-sponsored service patrol or towing services.	338	678	50%	338	678	50%	230	678	34%
Arterial miles are covered by incident detection algorithms	0	2634	0%		2634			2634	
Arterial miles are covered by free cellular phone calls to a dedicated number	0	2634	0%		2634			2634	
Arterial miles are covered by surveillance cameras	66	2634	3%	56	2634	2%	92	2634	3%
Arterial miles are covered by on-call publicly-sponsored service patrol or towing services	0	2634	0%		2634			2634	

Incident Management Integration Indicators

Dallas, Fort Worth

Incident Management Integration*



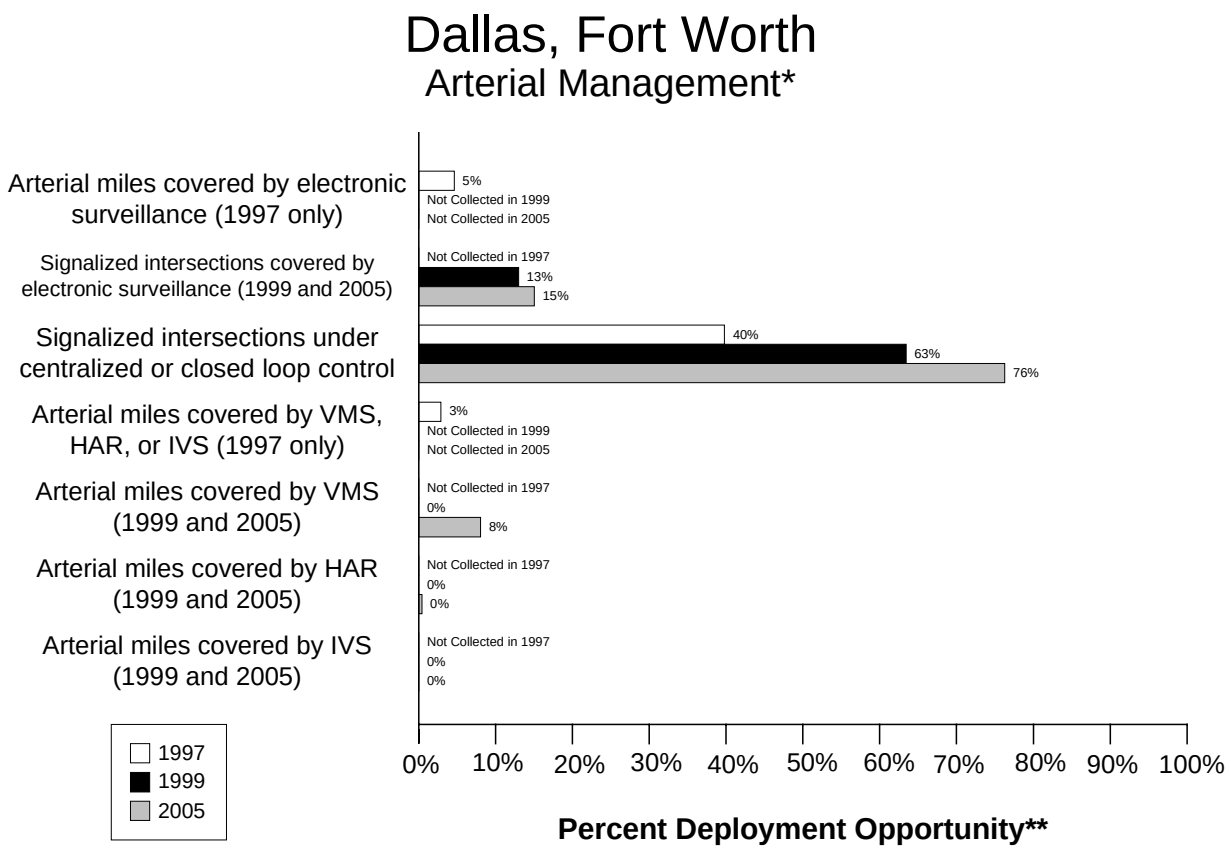
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
21a. Incident management agencies receiving incident severity from Emergency Management	(0/ 2) 0%	(0/ 2) 0%
21b. Incident management agencies receiving incident clearance activities from Emergency Management	(0/ 2) 0%	(0/ 2) 0%
13. Freeway Management agencies sending freeway conditions to Incident Management	(2/ 2) 100%	(2/ 2) 100%
4. Arterial Management agencies sending arterial conditions to Incident Management	(3/ 11) 27%	(7/ 11) 64%
23. Arterial Management agencies receive information on highway-rail intersection crossing blockages for the purpose of managing incident response	(0/ 11) 0%	(0/ 11) 0%
29. Transit Management agencies report traffic incidents as part of an organized regional incident management program	(3/ 7) 43%	(3/ 7) 43%

Link Description	1999	2005
7. Incident management agencies transfer information describing incident severity, location, and type to Emergency Management agencies	(0/ 2) 0%	(0/ 2) 0%
9. Incident Management agencies transfer information describing incident severity, location, and type to Transit Management agencies	(0/ 2) 0%	(0/ 2) 0%
6. Incident Management agencies disseminate information describing incident severity, location, and type to the public	(2/ 2) 100%	(2/ 2) 100%
5. Incident Management agencies transfer information describing incident severity, location, and type to Arterial Management agencies	(0/ 2) 0%	(1/ 2) 50%
8. Incident Management agencies transfer information describing incident severity, location, and type to Freeway Management agencies	(2/ 2) 100%	(2/ 2) 100%
25. Police, fire, and EMS agencies participating in a formal incident management plan/team	(20/ 31) 65%	(20/ 31) 65%

Arterial Management Component Indicators

Data as of 5/1/00



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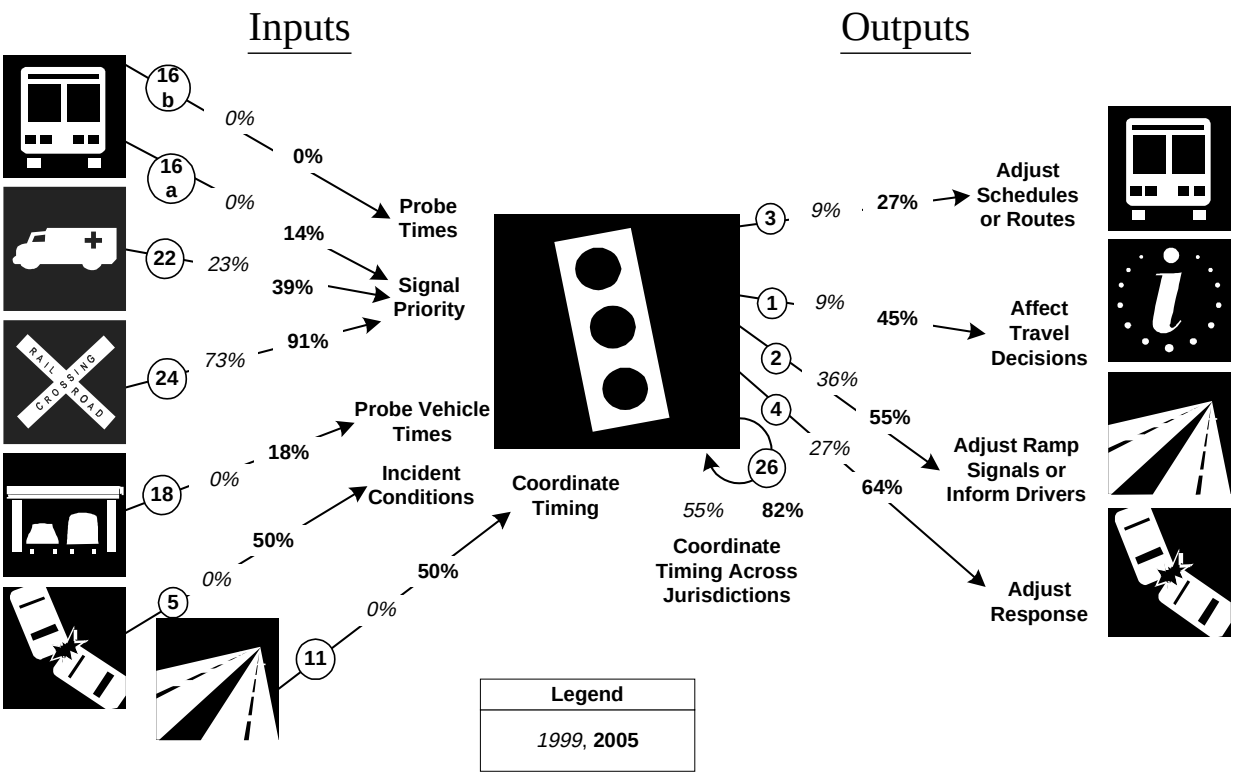
	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Arterial miles covered by electronic surveillance	122	2634	5%						
Signalized intersections are covered by electronic surveillance for monitoring traffic flow				387	2977	13%	504	3344	15%
Signalized intersections are under centralized or closed loop control	1505	3781	40%	1888	2977	63%	2550	3344	76%

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Arterial miles are covered by VMS, HAR, or IVS	76	2634	3%						
Arterial miles are covered by VMS				0	2634	0%	212	2634	8%
Arterial miles are covered by HAR				0	2634	0%	11	2634	0%
Arterial miles are covered by IVS				0	2634	0%	0	2634	0%

Arterial Management Integration Indicators

Dallas, Fort Worth

Arterial Management Integration*



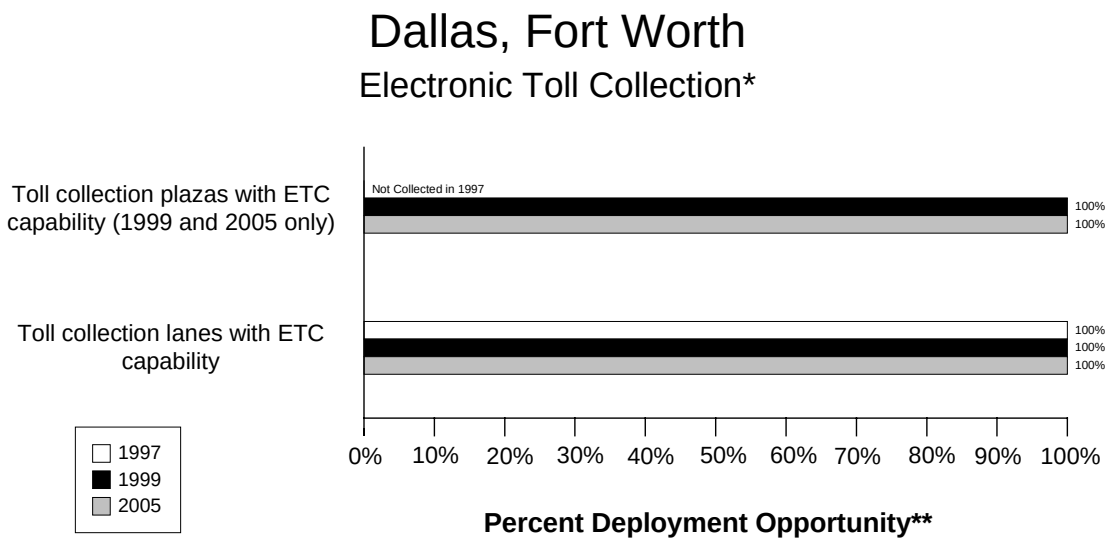
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
16a. Transit management agencies with vehicles equipped with traffic signal priority	(0/ 7) 0%	(1/ 7) 14%
16b. Transit Management agencies have vehicles equipped as probes on arterials	(0/ 7) 0%	(0/ 7) 0%
22. Emergency Management agencies have vehicles equipped with traffic signal preemption capability	(7/ 31) 23%	(12/ 31) 39%
24. Arterial Management agencies have traffic signals within 200 feet of a highway rail intersection with the capability of having their signal timing adjusted in response to a train crossing	(8/ 11) 73%	(10/ 11) 91%
18. Number of Arterial Management agencies receiving information from vehicle probes	(0/ 11) 0%	(2/ 11) 18%
5. Incident Management agencies transfer information describing incident severity, location, and type to Arterial Management	(0/ 2) 0%	(1/ 2) 50%

Link Description	1999	2005
11. Freeway Management agencies transfer freeway travel times, speeds, and conditions to Arterial Management agencies	(0/ 2) 0%	(1/ 2) 50%
3. Arterial Management agencies transfer arterial travel times, speeds, and conditions to Transit Management	(1/ 11) 9%	(3/ 11) 27%
1. Arterial Management agencies disseminate arterial travel times, speeds, and conditions to the public	(1/ 11) 9%	(5/ 11) 45%
2. Arterial Management agencies send traffic condition information to Freeway Management	(4/ 11) 36%	(6/ 11) 55%
4. Arterial Management agencies transfer arterial travel times, speeds, and conditions to Incident Management	(3/ 11) 27%	(7/ 11) 64%
26. Arterial Management agencies under cooperative agreement to share traffic signal timing for coordinated response	(6/ 11) 55%	(9/ 11) 82%

Electronic Toll Collection Component Indicators

Data as of 5/1/00



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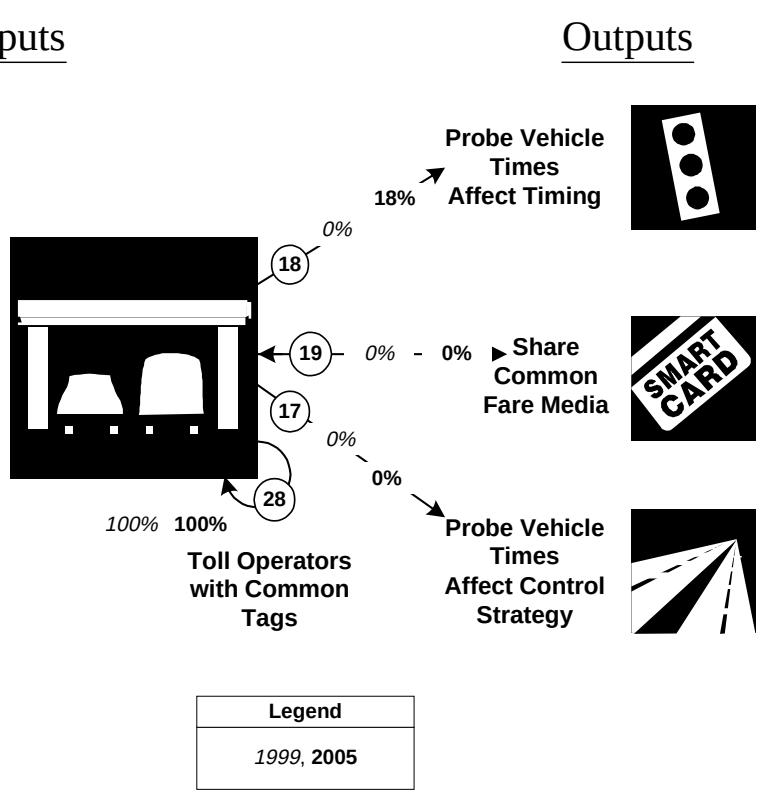
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Toll collection plazas with ETC capability				30	30	100%	60	60	100%
Toll collection lanes with ETC capability	81	81	100%	102	102	100%	238	238	100%

Electronic Toll Collection Integration Indicators

Dallas, Fort Worth
Electronic Toll Collection Integration*

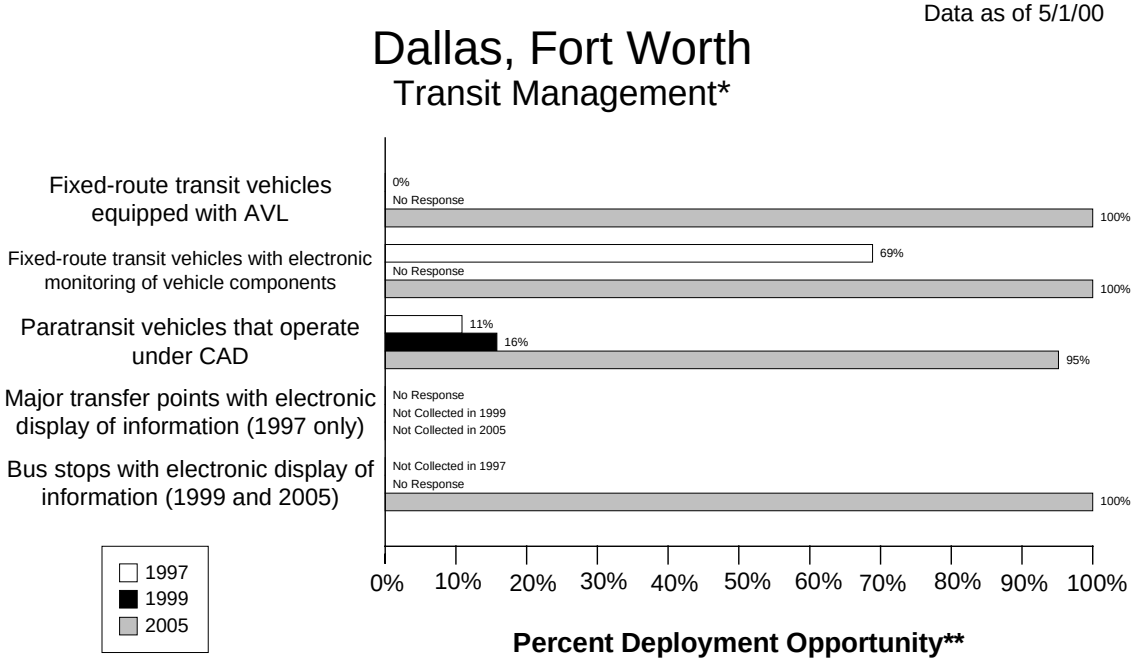


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
18. Number of Arterial Management agencies receiving information from vehicle probes	(0/ 11) 0%	(2/ 11) 18%
19. Transit agencies that accept electronic payment through the use of electronic toll collection media	(0/ 7) 0%	(0/ 7) 0%
17. Freeway Management agencies receiving information from vehicle probes	(0/ 2) 0%	(0/ 2) 0%
28. Toll operators using common toll tag technology	(1/ 1) 0%	(1/ 1) 0%

Transit Management Component Indicators

Data as of 5/1/00



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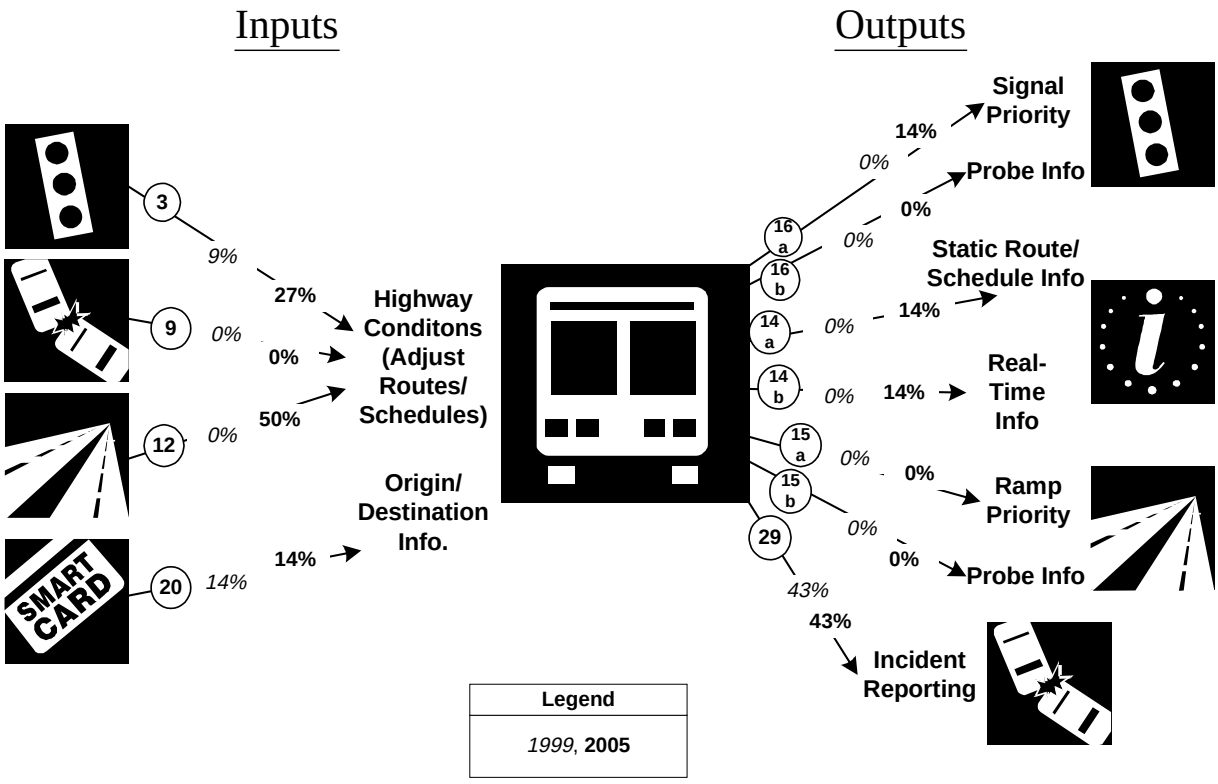
	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Fixed-route transit vehicles are equipped with AVL	0	363	0%		369		70	70	100%
Fixed-route transit vehicles are equipped with electronic monitoring of vehicle component	250	363	69%		369		70	70	100%
Paratransit vehicles operate under computer-aided dispatch	5	46	11%	18	114	16%	118	124	95%
Percent fixed-route transfer locations with electronic display of information	0	0							
Bus stops display information to the public							15	15	100%

Transit Management Integration Indicators

Dallas, Fort Worth
Transit Management Integration*



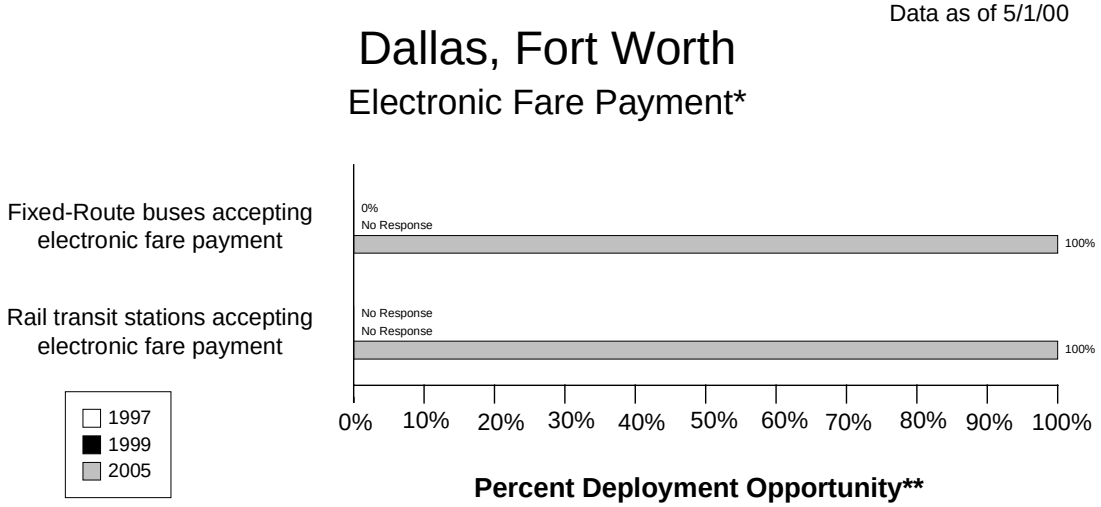
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
3. Arterial Management agencies transfer arterial travel times, speeds, and conditions to Transit Management	(1/ 11) 9%	(3/ 11) 27%
9. Incident management agencies transfer information describing incident severity, location, and type to Transit Management	(0/ 2) 0%	(0/ 2) 0%
12. Freeway Management agencies transfer freeway travel times, speeds, and conditions to Transit Management	(0/ 2) 0%	(1/ 2) 50%
20. Transit Management agencies using Electronic Fare Payment data in transit service planning	(1/ 7) 14%	(1/ 7) 14%
16a. Transit Management agencies have vehicles equipped with traffic signal priority capability	(0/ 7) 0%	(1/ 7) 14%
16b. Transit Management agencies have vehicles equipped as probes on arterials	(0/ 7) 0%	(0/ 7) 0%
14a. Transit Management agencies disseminate information describing transit routes, schedules, and fares to travelers	(0/ 7) 0%	(1/ 7) 14%

Link Description	1999	2005
14b. Transit Management agencies disseminate information describing schedule/route adherence to travelers	(0/ 7) 0%	(1/ 7) 14%
15a. Transit Management agencies have vehicles equipped with ramp meter priority capability	(0/ 7) 0%	(0/ 7) 0%
15b. Transit Management agencies have vehicles equipped as probes on freeways	(0/ 7) 0%	(0/ 7) 0%
29. Transit Management agencies that report traffic incidents as part of an organized regional Incident Management program	(3/ 7) 43%	(3/ 7) 43%

Electronic Fare Payment Component Indicators

Data as of 5/1/00



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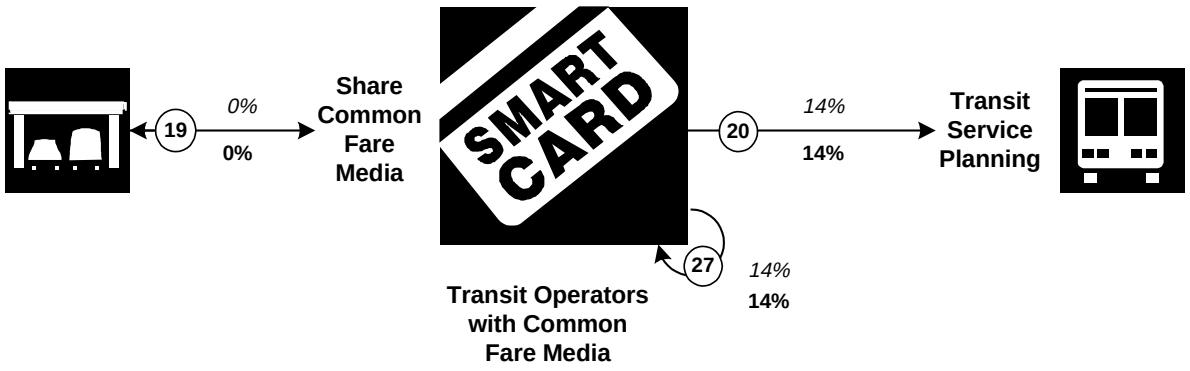
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

Description	1997			1999			2005		
	Num	Den	%	Num	Den	%	Num	Den	%
Fixed-route transit vehicles that accept electronic payment	0	363	0%		369		70	70	100%
Rail transit stations that accept electronic payment	0	0					6	6	100%

Electronic Fare Payment Integration Indicators

Dallas, Fort Worth
Electronic Fare Payment Integration*

Inputs Outputs



Legend
1999
2005

* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

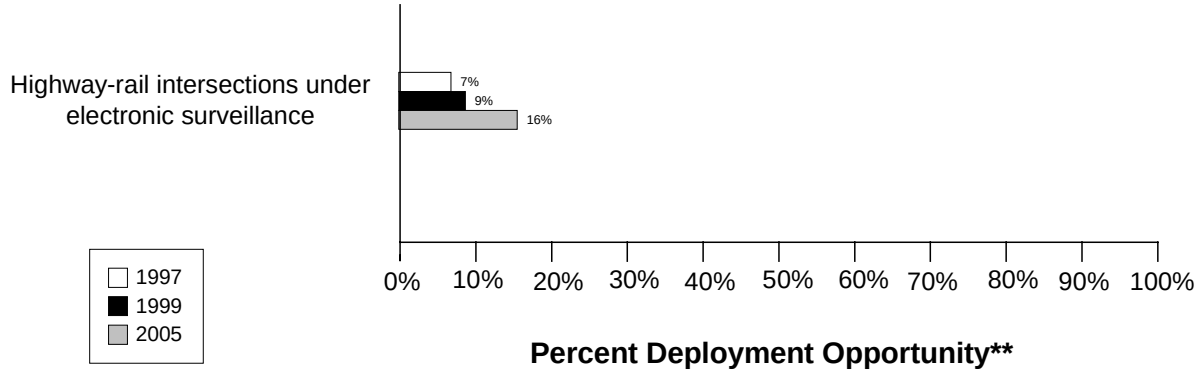
Link Description	1999	2005
19. Transit agencies that accept electronic payment through the use of electronic toll collection media	(0/ 7) 0%	(0/ 7) 0%
20. Transit Management agencies use Electronic Fare Payment data in transit service planning	(1/ 7) 14%	(1/ 7) 14%
27. Transit Management agencies that use the same electronic payment system	(1/ 7) 14%	(1/ 7) 14%

Highway Rail Intersection Component Indicators

Data as of 5/1/00

Dallas, Fort Worth

Highway-Rail Intersections*



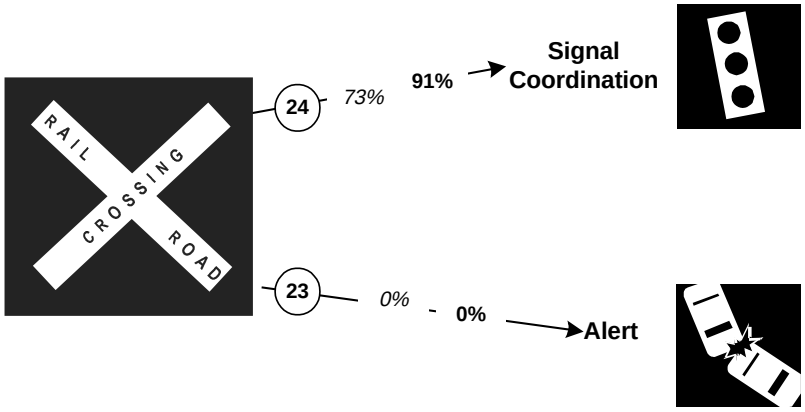
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Highway-rail intersections are under electronic surveillance	26	376	7%	27	307	9%	48	307	16%

Highway Rail Intersection Integration Indicators

Dallas, Fort Worth
Highway Rail Intersections Integration*

Inputs Outputs



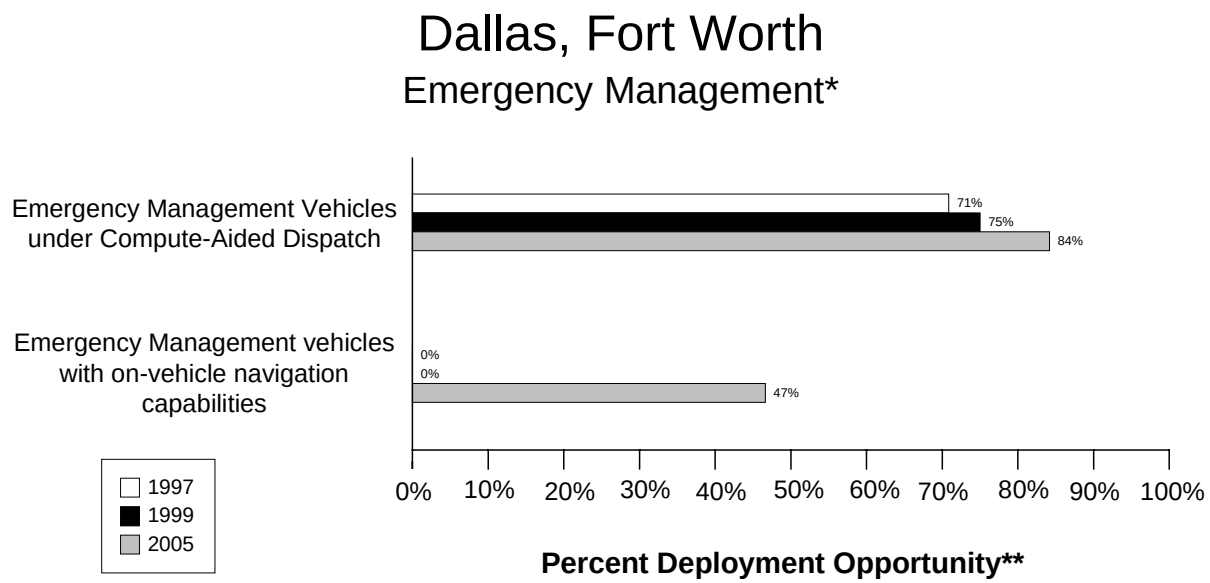
Legend
1999, **2005**

* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	**1999**	**2005**
24. Arterial Management agencies with traffic signals within 200 feet of a highway rail intersection with the capability of having their signal timing adjusted in response to a train crossing	(8/ 11) 73%	(10/ 11) 91%
23. Arterial Management agencies receive information on highway-rail intersection crossing blockages for the purpose of managing incident response	(0/ 11) 0%	(0/ 11) 0%

Emergency Management Component Indicators

Data as of 5/1/00



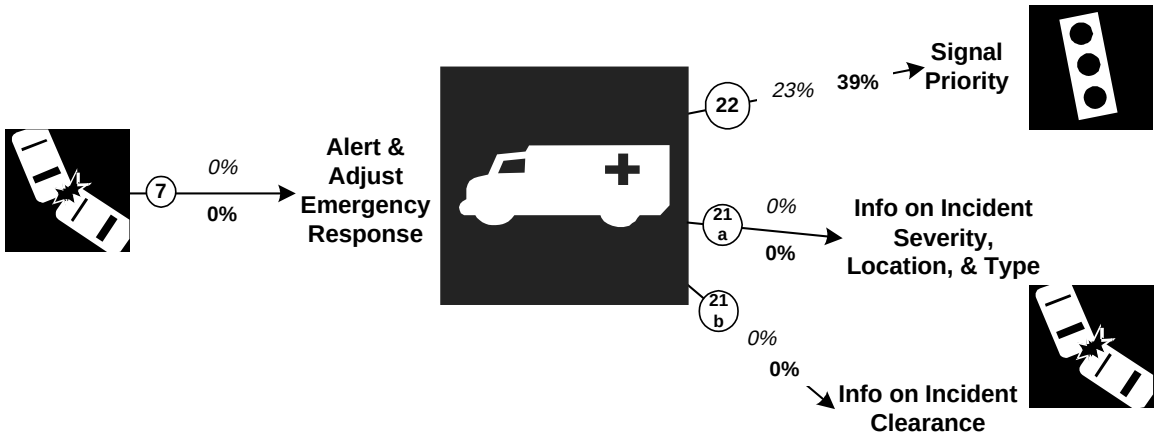
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Public sector emergency vehicles that operate under computer-aided dispatch	1952	2755	71%	2122	2830	75%	1758	2089	84%
Public sector emergency vehicles that have in-vehicle route guidance capability	0	2755	0%	0	2830	0%	974	2089	47%

Emergency Management Integration Indicators

Dallas, Fort Worth
Emergency Management Integration*

Inputs Outputs



Legend
1999, **2005**

* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

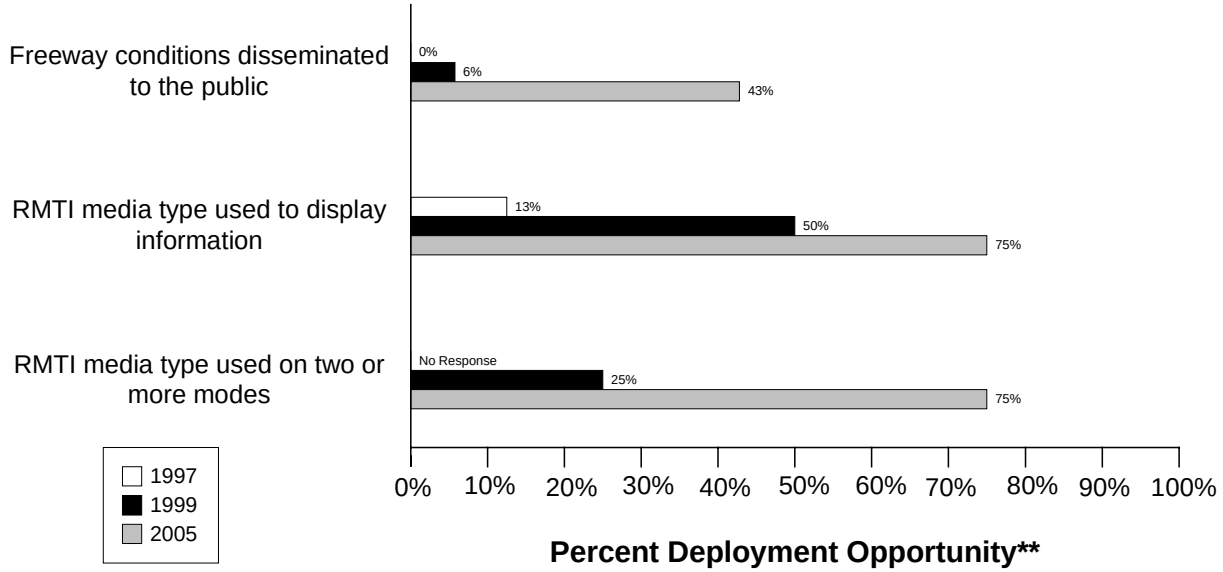
Link Description	1999	2005
7. Freeway Management agencies transfer information describing incident severity, location, and type to Emergency Management agencies	(0/ 2) 0%	(0/ 2) 0%
22. Emergency Management agencies have vehicles equipped with traffic signal preemption capability	(7/ 31) 23%	(12/ 31) 39%
21a. Freeway Management agencies receive incident severity, location, and type data from Emergency Management agencies	(0/ 2) 0%	(0/ 2) 0%
21b. Freeway Management agencies receive incident clearance activities information from Emergency Management agencies	(0/ 2) 0%	(0/ 2) 0%

Regional Multimodal Traveler Information Component Indicators

Data as of 5/1/00

Dallas, Fort Worth

Regional Multimodal Traveler Information*

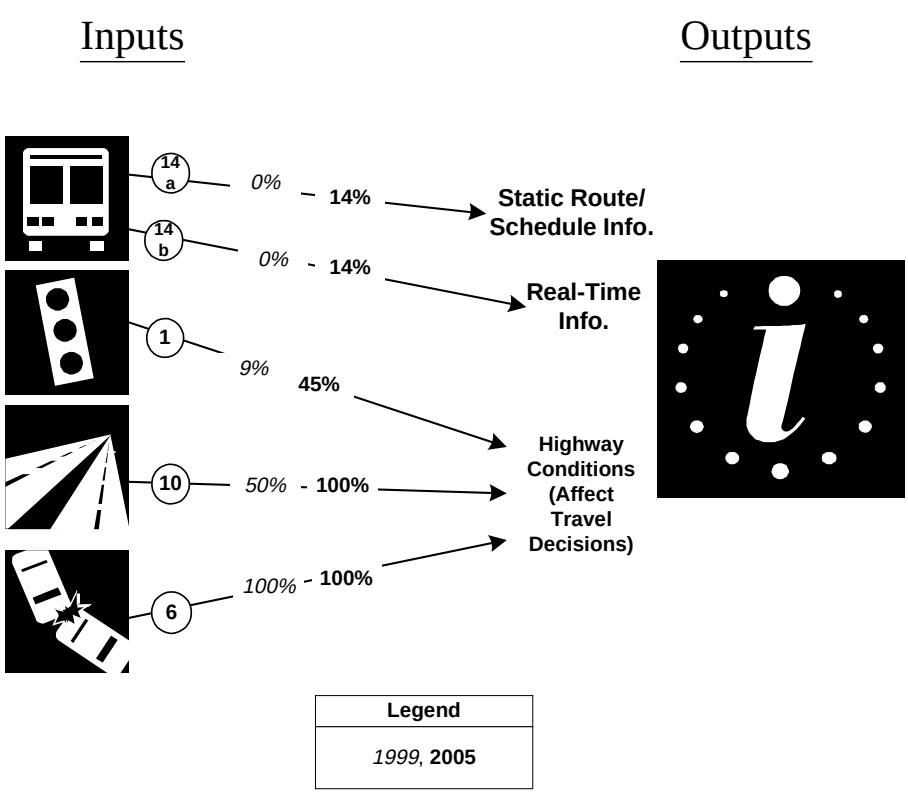


* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity.
** Deployment opportunity reflects potential totals that do not necessarily reflect actual need.

	1997			1999			2005		
Description	Num	Den	%	Num	Den	%	Num	Den	%
Freeway conditions disseminated to travelers	0	678	0%	39	678	6%	290	678	43%
Possible RMTI media types are used to display information to travelers	1	8	13%	4	8	50%	6	8	75%
Possible RMTI media are used to display information on *two or more modes* to travelers				2	8	25%	6	8	75%

Regional Multimodal Traveler Information Integration Indicators

Dallas, Fort Worth
Regional Multimodal Traveler Information Integration*

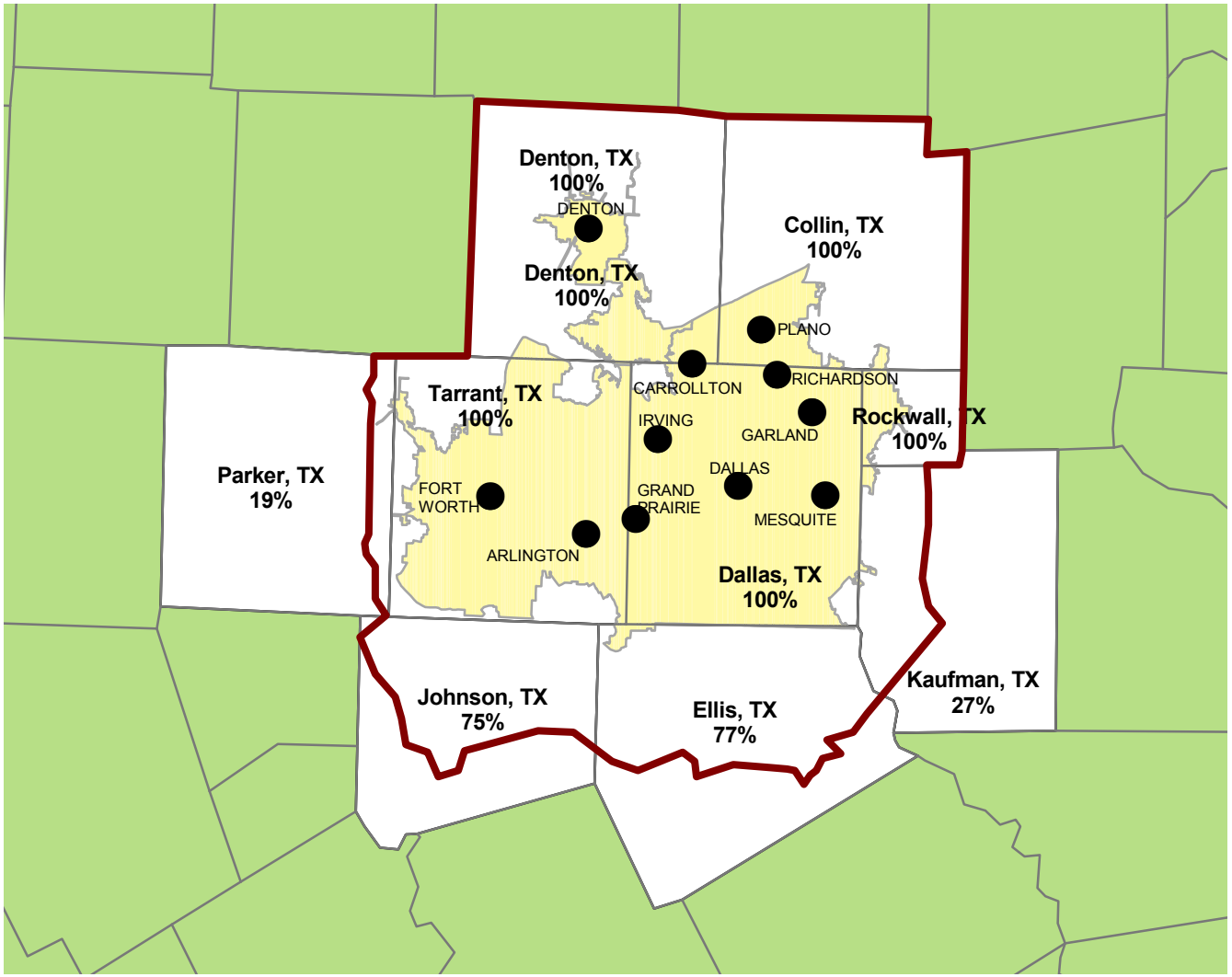


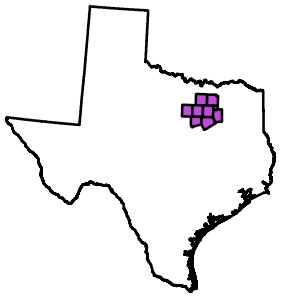
* Indicators are single surrogates that do not necessarily reflect the full breadth of ITS deployment activity

Link Description	1999	2005
14a. Transit Management agencies that disseminate information describing transit routes, schedules, and fares to travelers	(0/ 7) 0%	(1/ 7) 14%
14b. Transit Management agencies that disseminate information describing schedule/route adherence to travelers	(0/ 7) 0%	(1/ 7) 14%
1. Arterial Management agencies that disseminate arterial travel times, speeds, and conditions to the public	(1/ 11) 9%	(5/ 11) 45%
10. Freeway Management agencies that disseminate freeway travel times, speeds, and conditions to travelers	(1/ 2) 50%	(2/ 2) 100%
6. Incident Management agencies that disseminate information describing incident severity, location, and type to the public	(2/ 2) 100%	(2/ 2) 100%

Appendix A
Survey Coverage Area

NORTH CENTRAL TEXAS
COUNCIL OF GOVERNMENTS, TX





City Included in Surveys

Metropolitan Planning Area Boundary

County Boundary

Urbanlized Area

Outside Survey Area

Percentage on the Map Represents Percentage of County Population Included within MPO Boundary

Appendix B
Surveyed Agencies

Surveyed Agencies

Agency Name	Phone	Fax	1999		1997	
			Out	In	Out	In
DALLAS, FORT WORTH						
Arterial Management						
Arlington City	(817) 459-6350	(817) 459-6379	7/29/1999	10/27/1999	08/14/1997	09/02/1997
Carrollton City	(972) 466-3050	(972) 466-3175	7/29/1999	2/9/2000	08/14/1997	09/17/1997
Dallas City	(214) 670-3260	(214) 670-3292	7/29/1999	10/15/1999	08/14/1997	10/23/1997
Denton City	(940) 349-8506	(940) 349-7707	7/29/1999	8/17/1999	08/14/1997	08/19/1997
Fort Worth City	(817) 871-8067	(817) 871-8941	7/29/1999	2/11/2000	08/14/1997	10/07/1997
Garland City	(972) 205-2430	(972) 205-2823	7/29/1999	10/4/1999	08/14/1997	08/22/1997
Grand Prairie City	(972) 237-8132	(972) 237-8116	7/29/1999	8/16/1999	08/14/1997	09/02/1997
Irving City	(972) 721-2646	(972) 721-3720	7/29/1999	10/4/1999	08/14/1997	12/01/1997
Mesquite City	(972) 216-6339	(972) 216-6360	7/29/1999		08/14/1997	
Plano City	(972) 941-7151	(972) 941-7396	7/29/1999		08/14/1997	08/20/1997
Richardson City	(972) 238-4273	(972) 238-4247	7/29/1999	9/16/1999	08/14/1997	
Texas Department of Transportation Dallas	214-320-4438	(214) 320-4492	7/29/1999		08/14/1997	10/07/1997
Texas Department of Transportation Fort Worth	(817) 370-6705	(817) 370-6707	7/29/1999	9/20/1999	08/14/1997	10/06/1997
Electronic Toll Collection						
Texas Turnpike Authority	(214) 461-2020	(214) 528-4826	6/30/1999	8/23/1999	08/14/1997	08/18/1997
Emergency Management						
Denton County Sheriffs Department	(940) 898-5650	(940) 898-5604	6/3/1999	8/4/1999	08/14/1997	08/19/1997
Dallas County Fire Department	(214) 904-3010	(214) 904-3097	6/3/1999	6/8/1999	08/14/1997	08/22/1997
Collin County Sheriffs Department	(972) 547-5100	(972) 547-5304	6/3/1999	6/8/1999	08/14/1997	10/08/1997
Texas Department of Transportation Fort Worth	(817) 370-6619	(817) 370-6707	6/3/1999	6/17/1999	08/14/1997	08/21/1997
Richardson City Police Department	972-238-3894	972-238-3832	6/3/1999	6/4/1999	05/15/1998	05/15/1998
Richardson City Fire Department	(972) 238-3944	(972) 238-3816	6/3/1999	6/7/1999	08/14/1997	05/15/1998
Tarrant County Sheriffs Department	(817) 884-3598	(817) 884-1894	6/3/1999	8/26/1999	08/14/1997	10/08/1997
Johnson County Sheriffs Office	(817) 556-6058	(817) 556-6051	6/3/1999	8/3/1999	08/14/1997	08/15/1997
Dallas County Sheriffs Department	(214) 653-2977	(214) 653-3420	6/3/1999	6/15/1999	08/14/1997	09/03/1997
Fort Worth City Police Department	(817) 877-8060	(817) 877-8036	6/3/1999	9/13/1999	08/14/1997	07/06/1998
Ellis County Sheriffs Department	(972) 923-4900	(972) 923-0539	6/3/1999	6/23/1999	08/14/1997	10/08/1997
Mesquite City Police Department	972-216-6250	972-216-8140	6/3/1999	6/7/1999	08/14/1997	05/15/1998
Mesquite City Fire Department	(972) 216-6306	(972) 216-6436	6/3/1999	7/28/1999	08/14/1997	05/15/1998
Irving City Police Department	(972) 721-2306	(972) 721-8009	6/3/1999	8/26/1999	08/14/1997	10/08/1997
Irving City Fire Department	(972) 721-2514	(972) 721-2795	6/3/1999	7/28/1999	08/14/1997	08/26/1997
Grand Prairie City Police Department	(972) 237-8790	(972) 237-8714	6/3/1999	7/27/1999	08/14/1997	10/08/1997

Agency Name	Phone	Fax	1999		1997	
			Out	In	Out	In
Fort Worth City Fire Department	817-871-6858	817-871-8591	6/3/1999	6/8/1999	08/14/1997	08/18/1997
Garland City Fire Department	(972) 205-2272	(972) 205-2703	6/3/1999	6/10/1999	08/14/1997	08/26/1997
Texas Department of Transportation Dallas	214-320-4438	(214) 320-4492	6/3/1999	6/25/1999	08/14/1997	08/29/1997
Dallas City Police Department	(214) 670-6191	(214) 670-5507	6/3/1999	6/10/1999	08/14/1997	10/08/1997
Dallas City Fire Department	(214) 670-8918	(214) 670-8929	6/3/1999	7/30/1999	05/15/1998	05/15/1998
Carrollton City Police Department	(972) 466-3290	(972) 466-3522	6/3/1999	6/4/1999	08/14/1997	08/28/1997
Carrollton City Fire Department	(972) 466-3070	(972) 466-4886	6/3/1999	8/24/1999	08/14/1997	08/18/1997
Arlington City Police Department	(817) 459-5500	(817) 459-5507	6/3/1999	6/25/1999	08/14/1997	10/08/1997
Arlington City Fire Department	(817) 459-5500	(817) 459-5507	6/3/1999	6/25/1999	08/14/1997	08/18/1997
Garland City Police Department	(972) 205-2010	(972) 205-2637	6/3/1999	6/10/1999	08/14/1997	08/28/1997
Irving City Fire Department (Emergency	(972) 721-2514	(972) 721-2795	6/3/1999	8/19/1999	08/14/1997	08/26/1997
Garland City Emergency Medical Services	(972) 205-2272	(972) 205-2703	6/3/1999	6/10/1999	08/14/1997	08/26/1997
Plano City Fire & EMS Department	972-941-7159	972-941-7291	6/24/1999	6/24/1999	08/14/1997	08/18/1997
Plano City Police Department	972-941-2401	972-941-2177	6/17/1999	6/22/1999	08/14/1997	08/26/1997
Rural/Metro Ambulance - City	(817) 459-5500	(817) 459-5507	6/3/1999	6/25/1999		
Freeway Management						
Texas Department of Transportation Dallas	214-320-4438	(214) 320-4492	7/3/1999	10/11/1999	08/14/1997	08/28/1997
Texas Department of Transportation Fort Worth	(817) 370-6619	(817) 370-6707	7/29/1999	8/23/1999	08/14/1997	09/03/1997
MPO						
North Central Texas Council of Governments	(817) 640-3300	(817) 640-3028	7/15/1999	9/30/1999		
Transit Management						
Grand Prairie City	(972) 237-8131	(972) 237-8116	8/9/1999	10/4/1999	08/15/1997	10/09/1997
Fort Worth Transportation Authority (The T)	(817) 215-8600	(817) 215-0000	8/9/1999	10/11/1999	08/14/1997	09/15/1997
Dallas Area Rapid Transit (DART)	(214) 928-6022	(214) 928-6353	8/9/1999		07/17/1997	
Mesquite City Transit	(972) 216-6411	(972) 216-8102	8/9/1999	11/23/1999	07/17/1997	10/10/1997
Lewisville Dial-A-Ride	(972) 219-3405	(972) 219-3412	8/9/1999	9/7/1999	08/15/1997	08/19/1997
Denton City Manager	940-382-1900		11/3/1999	11/3/1999	07/17/1997	07/25/1997

Appendix C
Freeway Management Components

Freeway Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	2005	1999	2005	1999	2005
Agency Returned Survey?	Yes		Yes		2	
FREEWAY MANAGEMENT SECTION						
Number of freeway centerline miles that agency owns or maintains	NR		NR		0	
Number of freeway centerline miles that is used for planning	NR		NR		0	
Number of freeway entrance ramps that agency owns, operates or maintains	NR		NR		0	
Number of freeway entrance ramps that is used for planning	NR		NR		0	
Type of facilities used to conduct freeway/incident management activities						
Activities housed in a free-standing dedicated building?	No		No		0	
Activities housed in a building shared with other activities?	No		No		0	
Activities conducted in a dedicated control room?	No		Yes		1	
Control room contains operator console(s)?	No		No		0	
Control room contains electronic wall map?	No		No		0	
Control room contains CCTV display(s)?	No		No		0	
Activities conducted in a room containing workstations or PCs that manage traffic?	No		No		0	
Facilities are electronically linked to other transportation mgt facilities?	No		No		0	
Staffing and hours of operation of freeway/incident management activities						
Number of full-time agency staff members	NR		4		4	
Number of full time contractor staff members	NR		0		0	
Number of part-time agency staff members	NR		NR		0	
Number of part-time contractor staff members	NR		NR		0	
Staffed 24 hours day by agency staff or by others	NR		NR		0	
Staffed during peak hours only by agency staff or by others	NR		NR		0	
Staffed by others during off-peak hours	No		No		0	
Agency staff perform transportation management as an ancillary duty	No		No		0	
Agency staff dedicated to transportation management duty	No		No		0	
Types of operations conducted for freeway/incident management						
Incident detection and management?	No		Yes		1	
This metropolitan area?	No		Yes		1	
Other metropolitan area?	No		No		0	
Statewide?	No		No		0	
Monitoring and troubleshooting status of system components?	No		Yes		1	
Manual override of ramp metering rates at freeway on-ramps?	No		Yes		1	
Operating transportation management roadside devices?	No		Yes		1	
Radio communications with other agencies?	No		Yes		1	
Exchange of electronic data with other agencies such as computer aided dispatch?	No		Yes		1	

Freeway Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Real-Time Traffic Data Collection Technologies						
Total number of miles under surveillance with real-time data collection tech.	0	150	39	140	39	290
Number of Stations with data collection technologies						
Loop detectors	0	0	1,433	NR	1,433	0
Video imaging detectors	0	0	0	0	0	0
Probe readers (elec. toll tags, transit vehicles, other technology)	0	0	0	0	0	0
Microwave radar	0	0	0	0	0	0
Other (e.g., acoustic detectors)	0	0	0	0	0	0
Number of Miles covered with data collection technologies						
Loop detectors	0	0	26	NR	26	0
Video imaging detectors	0	0	0	0	0	0
Probe readers (elec. toll tags, transit vehicles, other technology)	0	0	0	0	0	0
Microwave radar	0	0	0	0	0	0
Other (e.g., acoustic detectors)	0	0	0	0	0	0
Variable Message Signs (VMS) on Freeways						
Candidate locations for deployment of VMS where VMS has been deployed	16	60	NR	NR	16	60
Candidate locations for deployment of VMS	34	110	50	80	84	190
Roadside Technologies used to Distribute Traveler Information						
Total number of miles where information is distributed	0	220	260	260	260	480
Number deployed						
Highway advisory radio	NR	NR	0	0	0	0
In-vehicle signing	NR	NR	0	0	0	0
Portable variable message signs	0	0	6	12	6	12
Other	0	0	0	0	0	0
Miles covered						
Highway advisory radio	0	220	0	0	0	220
In-vehicle signing	0	0	0	0	0	0
Portable variable message signs	0	0	260	260	260	260
Other	0	0	0	0	0	0
Ramp Meters on Freeways						
Number of entrance ramp meters operated under isolated control	NR	NR	NR	NR	0	0
Number of entrance ramp meters operated under central control	NR	NR	5	NR	5	0
Number of entrance ramp meters that provide preemption for emergency vehicles	NR	NR	NR	NR	0	0
Number of entrance ramp meters that provide priority for transit vehicles	NR	NR	NR	NR	0	0
Total number of metered ramps	0	0	5	NR	5	0
Freeway centerline miles under lane control	0	150	221	NR	221	150
Communication Links						
Freeway centerline miles covered by the following type of communication						
Twisted pair cable	0	0	0	0	0	0
Coaxial cable	0	0	0	0	0	0

Freeway Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Fiber-optic cable	0	0	39	80	39	80
Microwave radio	0	0	1	NR	1	0
Other	0	0	25	60	25	60
ITS Standards Used Related to Freeway Management						
ATMS Data Dictionary Sections 1 and 2 (ITE TM 1.01)	No		Yes		1	
ATMS Data Dictionary Sections 3 and 4 (ITE TM 1.02)	No		Yes		1	
Message Set for External TMC Communication (ITE-9604-1)	No		Yes		1	
NTCIP Class B Profile (AASHTO TS 3.3)	No		Yes		1	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		No		0	
NTCIP Object Definitions for Environmental Sensor Stations (AASHTO TS 3.7)	No		No		0	
NTICP Object Definitions for Dynamic Message Signs (AASHTO TS 3.6)	No		Yes		1	
NTICP Object Definitions for Highway Advisory Radio (AASHTO TS 3.HAR)	No		No		0	
NTICP Object Definitions for Ramp Meter Control (AASHTO TS 3.RMC)	No		No		0	
NTICP Object Definitions for Transportation Sensor Systems (AASHTO TS 3.TSS)	No		No		0	
NTICP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	No		No		0	
Would agency be willing to participate in testing of ITS Standards?	NR		No		0	
Have agreements in place with other agencies to use similar hardware						
and software to aid maintenance and interoperability?	NR		No		0	
INCIDENT MANAGEMENT SECTION						
Use of Service Patrols to Assist in Detection and Response to Incidents						
Publicly operated service patrol vehicles	Yes		No		1	
Privately operated service patrol vehicles operated under public contract	No		No		0	
Total number of freeway miles patrolled by these services	188	230	150	NR	338	
Miles Covered by Methods to Detect and Verify Incidents						
Free cellular phone call to a dedicated phone number other than 911	0	230	NR	NR	0	
Police patrols	NR	NR	NR	NR	0	
Computer algorithms linked to traffic surveillance equipment	0	180	31	NR	31	
CCTV	35	150	39	NR	74	
Private sector sources (e.g., Shadow Traffic, SmartRoutes)	NR	NR	39	NR	39	
Other (e.g., free cell phone call to an area radio system, etc.)	NR	NR	NR	NR	0	
Procedures in place for Freeway Incident Response?						
Working agreement(s)/arrangement(s) with other agencies	No		Yes		1	
Inter-agency incident management admin. team that meets regularly	No		No		0	
Major incident response team that responds to major incidents	No		No		0	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		0	
Central focal point for facilitating the two-way flow of information						
among agencies responding to an incident?						
The central focal point is a Freeway or Traffic Management Center	No		No		0	

	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	2005	1999	2005	1999	2005
The central focal point is a Police, Fire or joint dispatch center	No		No		0	
The central focal point is another center	No		No		0	
Methods of Communication Used On-Site at an Incident						
Police						
Two-way radio	No		No		0	
800 MHz trunked radio	No		Yes		1	
Cellular telephone	No		Yes		1	
Hand-held (i.e., walkie-talkie)	No		No		0	
Automated data systems (i.e., CAD)	No		No		0	
Fire						
Two-way radio	No		No		0	
800 MHz trunked radio	No		Yes		1	
Cellular telephone	No		Yes		1	
Hand-held (i.e., walkie-talkie)	No		No		0	
Automated data systems (i.e., CAD)	No		No		0	
DOT						
Two-way radio	No		Yes		1	
800 MHz trunked radio	No		Yes		1	
Cellular telephone	No		Yes		1	
Hand-held (i.e., walkie-talkie)	No		No		0	
Automated data systems (i.e., CAD)	No		No		0	
Towing						
Two-way radio	No		No		0	
800 MHz trunked radio	No		No		0	
Cellular telephone	No		Yes		1	
Hand-held (i.e., walkie-talkie)	No		No		0	
Automated data systems (i.e., CAD)	No		No		0	
Which police agencies typically respond to incidents on freeways?						
State Police	No		Yes		1	
County Police or Sheriff	No		Yes		1	
City Police	No		Yes		1	
Who provides on-site emergency medical response?						
Fire	No		Yes		1	
Emergency Management Service Agency	No		Yes		1	
Private hospital	No		No		0	
Has a multi-agency contact list been developed in area containing the						
names, phone numbers, etc. for the appropriate response personnel?	NR		No		0	

Freeway Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Is the Incident Command System used to manage incident scenes?	NR		No		0	
Is there a legal specification by state law or formal agreement as to who						
is "in charge" at the incident scene?						
Specified by state law?	No		No		0	
Formal agreement?	No		No		0	
Not specified or don't know?	No		Yes		1	
On-scene command post used to manage activities of responding agencies?	NR		No		0	
Are there communication linkages to a communications traffic/freeway mgt center?	NR		NR		0	
Plan developed and adopted by responding agencies for staging and parking						
response vehicles and equip. at incident site that minimizes lane blockage						
and facilitates the re-opening of lanes?	NR		DK		0	
Respondents protected through law or court opinion for liability claims						
for damages to vehicles or cargoes during clearance activities?	NR		Yes		1	
Are overturned tank trucks, which are intact and not leaking, uprighted						
without first off-loading?	NR		No		0	
Does your state or local jurisdiction have a law that requires drivers						
involved in property-damage-only accidents to move the vehicles						
from travel lanes to a safe location to exchange info and wait for police?	NR		Yes		1	
Have laws or policies regarding the removal of stalled/abandoned vehicles						
from freeway shoulders?	NR		No		0	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	NR		>36		0	
Have policies or procedures for quick removal of vehicles?	NR		No		0	
Is Total Station equipment used to investigate major incidents?	NR		Yes		1	
Handling of Towing Responses to Incidents						
Formal contract based on qualifications?	No		No		0	
Rotation with companies under contract?	No		No		0	
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR			
Rotation list with minimal qualifications?	No		Yes		1	
In towing qualifications, do you require towers to be certified under the						
Towing and Recovery Ass. of America's National Drivers Cert. Program?	NR		NR		0	
_____						
DK: Don't know						
NR: No Response						
Leg: Legislation or action being planned						

Appendix D
Freeway Management Integration

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Freeway Management Section				
Agencies your agency provides freeway travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	None listed	Texas Department of Transportation Dallas District, Website, Local Media, Local Cities	Texas Department of Transportation Dallas District, Website, Local Media, Local Cities
Share Infrastructure	None listed	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Coordinate Operation	None listed	None listed	Texas Department of Transportation Dallas District, Local Cities	Texas Department of Transportation Dallas District, Local Cities
Incident Management Agencies				
Provide Information	short survey	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Arterial Management Agencies				
Provide Information	None listed	None listed	None listed	Arlington City Transportation, Fort Worth City
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	Arlington City Transportation, Fort Worth City
Public Transit Operators				
Provide Information	None listed	None listed	None listed	Fort Worth Transportation Authority (The T)
Share Infrastructure	None listed	None listed	None listed	None listed

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Coordinate Operation	None listed	None listed	None listed	Fort Worth Transportation Authority (The T)
Receiving real-time information via electronic means from others				
Incident Management agencies from which your agency receives				
incident severity, location, and type information	short survey	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District, Tarrant 911
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	Arlington City Transportation, Fort Worth City
Public Transit operators from which your agency receives				
freeway travel times derived from vehicle probes	None listed	None listed	None listed	None listed
Toll Collection agencies from which your agency receives freeway travel				
times derived from vehicles probes	None listed	None listed	None listed	None listed
Freeway Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Arterial Management Agencies				
Provide Information	None listed	None listed	None listed	Arlington City Transportation, Fort Worth City
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	Arlington City Transportation, Fort Worth City
Emergency Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	short survey	None listed	Texas Department of Transportation Dallas District, Website, Local Media, Local Cities	Texas Department of Transportation Dallas District, Website, Local Media, Local Cities
Share Infrastructure	None listed	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District

Freeway Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Coordinate Operation	None listed	None listed	Texas Department of Transportation Dallas District, Local Cities	Texas Department of Transportation Dallas District, Local Cities
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Emergency Management agencies from which your agency receives				
incident clearance and/or incident severity and type				
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Appendix E
Freeway Management Information Collection and Dissemination

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Freeway Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	NR	NR	Traffic volumes, Traffic speeds, Vehicle classification, Ramp queues, Metering rate, Road conditions, Incidents, Current work zones, Scheduled work zones, Video/Snap Shots, Lane occupancy	Traffic volumes, Traffic speeds, Vehicle classification, Ramp queues, Metering rate, Road conditions, Incidents, Current work zones, Scheduled work zones, Video/Snap Shots, Lane occupancy
Archived by your agency	NR	NR	Incidents, Current work zones, Scheduled work zones, Video/Snap Shots	Traffic volumes, Traffic speeds, Vehicle classification, Ramp queues, Metering rate, Road conditions, Incidents, Current work zones, Scheduled work zones, Video/Snap Shots, Lane occupancy
Transferred to another agency by your agency	NR	NR	Traffic volumes, Incidents, Current work zones, Scheduled work zones, Video/Snap Shots	Traffic volumes, Traffic speeds, Vehicle classification, Incidents, Current work zones, Scheduled work zones, Video/Snap Shots, Lane occupancy
Importance of making information available to the public				
Ranked High	NR		Traffic volumes, Traffic speeds, Incidents, Current work zones, Scheduled work zones, Video/Snap Shots	
Ranked Medium	NR		Vehicle classification, Ramp queues, Metering rate, Road conditions, Lane occupancy	

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Ranked Low	NR		NR	
Groups that make requests for the data	NR		State DOT personnel, Media (I.e., TV stations, radio stations), MPOs, Advanced Traveler Information Systems (ATIS) provi	
What is the data used for?	NR		Traffic analysis, Planning, Real Time incident information	
Methods used to disseminate freeway information to the public				
Technologies your agency uses to disseminate:	NR	Dedicated cable TV, Telephone system, Internet Web sites, Pagers or personal data assistants, Kiosks, E-mail or other direct PC communication	Internet Web sites, E-mail or other direct PC communication	Internet Web sites, Pagers or personal data assistants, Kiosks, E-mail or other direct PC communication, In-vehicle navigation systems
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	Pagers or personal data assistants, In-vehicle navigation systems, Cell phone/data
Internet web site reporting freeway conditions	NR		www.dfwtraffic.dot.state.tx.us scheduled to go online on 10/99	
Telephone system for reporting freeway information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		local TV stations metro traffic shadow traffic traffic station	
Freeway Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	Telephone system, E-mail or other direct PC communication	Dedicated cable TV, Internet Web sites, Pagers or personal data assistants, Kiosks	Internet Web sites, E-mail or other direct PC communication	Internet Web sites, Kiosks, E-mail or other direct PC communication

Data Collection and Dissemination: Freeway Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	Pagers or personal data assistants, In-vehicle navigation systems, Cell phone/data
Internet web site reporting incident information	NR		see question 15	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		see question 15	

Appendix F
Arterial Management Components

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Arlington City		Carrollton City		Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
ARTERIAL MANAGEMENT SECTION								
Number of arterial miles that agency owns or maintains	1,804		NR		NR		46	
Number of arterial miles that is used for planning	1,804		NR		NR		46	
Number of highway-rail intersections that agency maintains	NR		NR		NR		17	
Number of highway-rail intersections that is used for planning	NR		NR		NR		NR	
Type of facilities used to conduct arterial management activities								
Activities housed in a free-standing dedicated building?	No		No		No		No	
Activities housed in a building shared with other activities?	Yes		No		No		Yes	
Activities conducted in a dedicated control room?	Yes		No		No		No	
Control room contains operator console(s)?	Yes		No		No		No	
Control room contains electronic wall map?	No		No		No		No	
Control room contains CCTV display(s)?	Yes		No		No		No	
Activities conducted in a room containing workstations or PCs that manage traffic?	Yes		No		No		No	
Facilities are electronically linked to other transportation mgt facilities?	No		No		No		No	
Staffing and hours of operation of arterial management activities								
Number of full-time agency staff members	NR		NR		NR		NR	
Number of full time contractor staff members	NR		NR		NR		NR	
Number of part-time agency staff members	NR		NR		NR		NR	
Number of part-time contractor staff members	NR		NR		NR		NR	
Staffed 24 hours day by agency staff or by others	NR		NR		NR		NR	
Staffed during peak hours only by agency staff or by others	NR		NR		NR		NR	
Staffed by others during off-peak hours	No		No		No		No	
Agency staff perform transportation management as an ancillary duty	No		No		No		Yes	
Agency staff dedicated to transportation management duty	No		No		No		No	
Types of operations conducted for arterial management								
Incident detection and management?	No		No		No		Yes	
This metropolitan area?	No		No		No		No	
Other metropolitan area?	No		No		No		No	
Monitoring and troubleshooting status of system components?	Yes		No		No		Yes	
Radio communications with other agencies?	No		No		No		No	
Exchange of electronic data with other agencies such as computer aided dispatch?	No		No		No		No	
Manual override of traffic signal timing plans	Yes		No		No		Yes	
Operating transportation mgt roadside devices (e.g., VMS, CCTV, etc.)	No		No		No		No	

	Arlington City		Carrollton City		Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Describe agency's role in traffic signal control	All roads in incorporated area		NR		NR		All roads in incorporated area	
Traffic Signals Operated by Agency								
Number of signalized intersections operated and owned by agency	NR	NR	NR	NR	NR	NR	100	130
Number of signalized intersections operated by agency but owned by another	NR	NR	NR	NR	NR	NR	0	0
Total number of signalized intersections operated by agency	268	298	94	NR	1,239	1,300	100	130
Characteristics of signalized intersections that agency operates								
Under closed loop or central system control	186	298	94	NR	1,050	1,300	47	NR
Under real-time traffic adaptive control using advanced software	0	0	0	NR	0	0	0	NR
Using SCOOT	No		No		No		No	
Using SCATS	No		No		No		No	
Name of software	NR		NR		NR		none	
Allow signal preemption for emergency vehicles	80	200	79	NR	0	0	49	NR
Allow signal priority for transit vehicles	0	0	0	NR	25	25	0	NR
Within 200 feet of a highway-rail intersection	3	3	12	NR	48	50	2	4
Within 200 feet of a highway-rail intersection that adjust signal timing	3	3	4	NR	22	25	0	5
Software used to control the signals agency operates								
Date of last upgrade to traffic signal control system software?	1983		NR		NR		1998	
How often do you update signal timing?	3-5 years		NR		NR		every two years	
Software used and number of signalized intersections under control (1999, 2005)	Eagle Comtrac, NR, NR		NR		NR		SMARTWAYS-PEEK, 47, NR	
Controllers used to control signals								
NEMA	268	298	0	0	0	0	98	NR
170/179	0	0	0	0	0	0	0	0
2070 controller	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Technologies Associated with Highway-Rail Intersections								
Total number of highway-rail intersections under electronic surveillance	5	20	NR	NR	NR	NR	NR	NR
Highway-Rail intersection capapbilities								
Video surveillance	5	20	0	0	0	0	0	0
Electronic surveillance other than video	0	0	0	0	0	0	0	0
Ability to predict train arrival electronically	0	0	0	0	0	0	0	0
Equipped with electronic traffic violator devices	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Real-Time Electronic Traffic Data Collection Technologies								
Total number of signalized intersections covered by electronic surveillance	268	298	NR	NR	NR	NR	NR	7

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Arlington City		Carrollton City		Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Number of signalized intersections with data collection technologies								
Loop detectors	268	298	0	0	0	0	NR	5
Video detection cameras	3	5	0	0	0	0	NR	2
Probe readers reading toll tags	0	0	0	0	0	0	0	0
Probe readers reading license plates	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Roadside Technologies used to Distribute Traveler Information								
Number deployed								
Highway Advisory Radio	NR	3	NR	NR	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	NR	NR
VMS controlling parking access	NR	NR	NR	NR	NR	NR	NR	NR
Miles covered								
Highway Advisory Radio	NR	NR	NR	NR	NR	NR	NR	NR
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	NR	NR
Variable Message Signs (VMS) on Arterials								
Candidate locations for deployment of VMS where VMS has been deployed	NR	NR	NR	NR	0	50	NR	NR
Candidate locations for deployment of VMS	NR	NR	NR	NR	NR	70	NR	3
Communication Technologies								
Signalized intersections communicated with by each type of communication								
Twisted pair cable	268	NR	0	0	0	0	0	0
Coaxial cable	0	0	0	0	0	0	0	0
Fiber-optic cable	NR	298	0	0	0	0	0	0
Other (e.g., wireless, dial-up modems, leased lines, etc.)	0	0	0	0	0	0	0	0
Does agency convey information on highway-rail intersection crossing status to travelers via roadside media such as VMS or HAR?	No		No		No		No	
ITS Standards Used Related to Traffic Signal Control								
Advanced Transportation Controller (ATC) Software Application Interface (ITE 9603-1)	No		No		No		No	
ATC Physical Cabinet Functional Design (ITE-9603-2)	No		No		No		No	
ATC Functionality and Interface Definitions (ITE-9603-3)	No		No		No		No	
Natl. Trans. Communications for ITS Protocol (NTCIP) Class B Profile (AASHTO TS 3.3)	No		No		No		No	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		No		No		No	
NTCIP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	No		No		No		No	
NTCIP Object Definitions for Actuated Traffic Signal Controller Units (AASHTO TS 3.5)	No		No		No		No	
Would agency be willing to participate in testing of ITS Standards?	Yes		NR		NR		Yes	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	No		NR		NR		Yes	
INCIDENT MANAGEMENT ON ARTERIAL STREETS								
Receive information on highway-rail intersection crossing blockages for the purpose of managing incident response?	No		No		No		No	
Use of Service Patrols to Assist in Detection and Response to Incidents								
Publicly operated service patrol vehicles	No		No		No		No	

	Arlington City		Carrollton City		Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Privately operated service patrol vehicles operated under public contract	No		No		No		No	
Total number of arterial miles patrolled by these services	NR	NR	NR	NR	NR	NR	NR	NR
Miles Covered by Methods to Detect and Verify Incidents								
Free cellular phone call to a dedicated phone number other than 911	0	0	0	0	0	0	0	0
Free cellular phone call to an area radio station	0	0	0	0	0	0	0	0
Police patrols	0	0	0	0	0	0	0	0
Computer algorithms linked to traffic surveillance equipment	0	0	0	0	0	0	0	0
CCTV	0	0	0	0	2	NR	0	0
Private sector sources (e.g., Shadow Traffic, Smart Routes)	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Procedures in place for Arterial Incident Response?								
Working agreement(s)/arrangement(s) with other agencies	No		No		No		No	
Inter-agency incident management admin. team that meets regularly	No		No		No		No	
Major incident response team that responds to major incidents	No		No		No		No	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		No		No	
Methods of Communication Used On-Site at an Incident								
Police								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		Yes	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Fire								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		Yes	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
DOT								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Towing								
Two-way radio	No		No		No		No	

	Arlington City		Carrollton City		Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Which police agencies typically respond to incidents on arterials?								
State Police	No		No		No		No	
County Police or Sheriff	No		No		No		No	
City Police	No		No		No		Yes	
Who provides on-site emergency medical response?								
Fire	No		No		No		Yes	
Emergency Management Service Agency	No		No		No		No	
Private hospital	No		No		No		No	
Has a multi-agency contact list been developed in area containing the								
names, phone numbers, etc. for the appropriate response personnel?	NR		NR		NR		DK	
Is the Incident Command System used to manage incident scenes?	NR		NR		NR		DK	
Is there a legal specification by state law or formal agreement as to who								
is "in charge" at the incident scene?								
Specified by state law?	No		No		No		No	
Formal agreement?	No		No		No		No	
Not specified or don't know?	No		No		No		Yes	
On-scene command post used to manage activities of responding agencies?	NR		NR		NR		DK	
Are there communication linkages to a communications traffic/freeway mgt center?	NR		NR		NR		NR	
Plan developed and adopted by responding agencies for staging and parking								
response vehicles and equip. at incident site that minimizes lane blockage								
and facilitates the re-opening of lanes?	NR		NR		NR		DK	
Respondents protected through law or court opinion for liability claims								
for damages to vehicles or cargoes during clearance activities?	NR		NR		NR		DK	
Are overturned tank trucks, which are intact and not leaking, uprighted								
without first off-loading?	NR		NR		NR		No	
Does your state or local jurisdiction have a law that requires drivers								
involved in property-damage-only accidents to move the vehicles								
from travel lanes to a safe location to exchange info and wait for police?	NR		NR		NR		Yes	
Have laws or policies regarding the removal of stalled/abandoned vehicles								
from freeway shoulders?	NR		NR		NR		No	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	NR		NR		NR		DK	
Have policies or procedures for quick removal of vehicles?	NR		NR		NR		Yes	
Is Total Station equipment used to investigate major incidents?	NR		NR		NR		DK	
Handling of Towing Responses to Incidents								
Formal contract based on qualifications?	No		No		No		No	
Rotation with companies under contract?	No		No		No		Yes	

	Arlington City		Carrollton City		Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR		NR		NR	
Rotation list with minimal qualifications?	No		No		No		No	
In towing qualifications, do you require towers to be certified under the								
Towing and Recovery Ass. of America's National Drivers Cert. Program?	NR		NR		NR		Yes	
_____								
DK: Don't know								
NR: No Response								
Leg: Legislation or action being planned								

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Fort Worth City		Garland City		Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
ARTERIAL MANAGEMENT SECTION								
Number of arterial miles that agency owns or maintains	NR		112		48		700	
Number of arterial miles that is used for planning	NR		98		48		500	
Number of highway-rail intersections that agency maintains	218		51		0		11	
Number of highway-rail intersections that is used for planning	NR		20		0		0	
Type of facilities used to conduct arterial management activities								
Activities housed in a free-standing dedicated building?	No		No		No		No	
Activities housed in a building shared with other activities?	No		Yes		Yes		Yes	
Activities conducted in a dedicated control room?	No		Yes		No		No	
Control room contains operator console(s)?	No		Yes		No		No	
Control room contains electronic wall map?	No		No		No		No	
Control room contains CCTV display(s)?	No		Yes		No		No	
Activities conducted in a room containing workstations or PCs that manage traffic?	No		Yes		Yes		No	
Facilities are electronically linked to other transportation mgt facilities?	No		Yes		Yes		No	
Staffing and hours of operation of arterial management activities								
Number of full-time agency staff members	NR		NR		2		NR	
Number of full time contractor staff members	NR		NR		NR		NR	
Number of part-time agency staff members	NR		1		0		NR	
Number of part-time contractor staff members	NR		0		NR		NR	
Staffed 24 hours day by agency staff or by others	NR		NR		NR		NR	
Staffed during peak hours only by agency staff or by others	NR		agency		agency		NR	
Staffed by others during off-peak hours	No		No		No		No	
Agency staff perform transportation management as an ancillary duty	No		Yes		No		No	
Agency staff dedicated to transportation management duty	No		No		No		No	
Types of operations conducted for arterial management								
Incident detection and management?	No		No		No		No	
This metropolitan area?	No		No		No		No	
Other metropolitan area?	No		No		No		No	
Monitoring and troubleshooting status of system components?	No		Yes		Yes		No	
Radio communications with other agencies?	No		No		No		No	
Exchange of electronic data with other agencies such as computer aided dispatch?	No		Yes		No		No	
Manual override of traffic signal timing plans	No		Yes		No		No	
Operating transportation mgt roadside devices (e.g., VMS, CCTV, etc.)	No		Yes		No		No	

	Fort Worth City		Garland City		Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Describe agency's role in traffic signal control	NR		All roads in incorporated area		All roads in incorporated area		All roads in incorporated area	
Traffic Signals Operated by Agency								
Number of signalized intersections operated and owned by agency	NR	NR	162	190	103	113	NR	NR
Number of signalized intersections operated by agency but owned by another	NR	NR	0	0	12	12	44	NR
Total number of signalized intersections operated by agency	600	675	162	190	115	135	NR	NR
Characteristics of signalized intersections that agency operates								
Under closed loop or central system control	304	675	114	170	30	85	48	NR
Under real-time traffic adaptive control using advanced software	0	0	0	NR	0	0	0	NR
Using SCOOT	No		No		No		No	
Using SCATS	No		No		No		No	
Name of software	NR		NR		NR		NR	
Allow signal preemption for emergency vehicles	256	325	113	190	16	20	0	NR
Allow signal priority for transit vehicles	0	0	0	NR	0	0	0	NR
Within 200 feet of a highway-rail intersection	16	17	12	12	15	15	6	NR
Within 200 feet of a highway-rail intersection that adjust signal timing	15	17	12	12	15	15	6	NR
Software used to control the signals agency operates								
Date of last upgrade to traffic signal control system software?	NR		Aeries 1/99		10/97		plan 2000	
How often do you update signal timing?	NR		5 years		2-5 years		as needed	
Software used and number of signalized intersections under control (1999, 2005)	NR		ARIES, 114, 170		EAGLE, CLOSED LOOP SYSTEM SOFTWARE, 30, NR		UNKNOWN, NR, 180 MARC, 17, NR	
Controllers used to control signals								
NEMA	0	0	162	190	115	135	180	NR
170/179	0	0	0	0	0	0	0	0
2070 controller	0	0	0	0	0	0	NR	180
Other	0	0	0	0	0	0	0	0
Technologies Associated with Highway-Rail Intersections								
Total number of highway-rail intersections under electronic surveillance	NR	NR	12	12	NR	NR	NR	6
Highway-Rail intersection capapbilities								
Video surveillance	0	0	0	0	0	0	NR	6
Electronic surveillance other than video	0	0	0	0	0	0	0	0
Ability to predict train arrival electronically	0	0	12	12	0	0	0	0
Equipped with electronic traffic violator devices	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Real-Time Electronic Traffic Data Collection Technologies								
Total number of signalized intersections covered by electronic surveillance	NR	NR	4	NR	13	90	NR	NR

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Fort Worth City		Garland City		Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Number of signalized intersections with data collection technologies								
Loop detectors	0	0	0	0	12	35	0	0
Video detection cameras	0	0	NR	4	1	5	0	0
Probe readers reading toll tags	0	0	0	0	0	0	0	0
Probe readers reading license plates	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Roadside Technologies used to Distribute Traveler Information								
Number deployed								
Highway Advisory Radio	NR	NR	0	1	0	1	NR	NR
In-Vehicle Signing (IVS)	NR	NR	0	0	0	0	NR	NR
VMS controlling parking access	NR	NR	0	0	0	0	NR	NR
Miles covered								
Highway Advisory Radio	NR	NR	0	5	0	6	NR	NR
In-Vehicle Signing (IVS)	NR	NR	0	0	0	0	NR	NR
Variable Message Signs (VMS) on Arterials								
Candidate locations for deployment of VMS where VMS has been deployed	NR	NR	0	20	0	4	NR	11
Candidate locations for deployment of VMS	NR	NR	0	20	0	4	NR	40
Communication Technologies								
Signalized intersections communicated with by each type of communication								
Twisted pair cable	0	0	100	154	26	0	48	40
Coaxial cable	0	0	0	0	0	0	0	0
Fiber-optic cable	0	0	0	0	0	85	NR	140
Other (e.g., wireless, dial-up modems, leased lines, etc.)	0	0	14	16	4	0	10	8
Does agency convey information on highway-rail intersection crossing status to travelers via roadside media such as VMS or HAR?	No		No		No		No	
ITS Standards Used Related to Traffic Signal Control								
Advanced Transportation Controller (ATC) Software Application Interface (ITE 9603-1)	No		No		No		No	
ATC Physical Cabinet Functional Design (ITE-9603-2)	No		No		No		No	
ATC Functionality and Interface Definitions (ITE-9603-3)	No		No		No		No	
Natl. Trans. Communications for ITS Protocol (NTCIP) Class B Profile (AASHTO TS 3.3)	No		No		Yes		No	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		No		Yes		No	
NTCIP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	No		No		No		No	
NTCIP Object Definitions for Actuated Traffic Signal Controller Units (AASHTO TS 3.5)	No		No		Yes		No	
Would agency be willing to participate in testing of ITS Standards?	NR		Yes		Yes		Yes	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	NR		No		No		No	
INCIDENT MANAGEMENT ON ARTERIAL STREETS								
Receive information on highway-rail intersection crossing blockages for the purpose of managing incident response?	No		No		No		No	
Use of Service Patrols to Assist in Detection and Response to Incidents								
Publicly operated service patrol vehicles	No		No		No		Yes	

	Fort Worth City		Garland City		Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Privately operated service patrol vehicles operated under public contract	No		No		No		No	
Total number of arterial miles patrolled by these services	NR	NR	NR	NR	NR	NR	NR	NR
Miles Covered by Methods to Detect and Verify Incidents								
Free cellular phone call to a dedicated phone number other than 911	0	0	0	0	0	0	0	0
Free cellular phone call to an area radio station	0	0	0	0	0	0	0	0
Police patrols	0	0	0	0	0	0	0	0
Computer algorithms linked to traffic surveillance equipment	0	0	0	0	0	0	0	0
CCTV	0	0	0	0	0	38	0	0
Private sector sources (e.g., Shadow Traffic, Smart Routes)	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Procedures in place for Arterial Incident Response?								
Working agreement(s)/arrangement(s) with other agencies	No		No		No		No	
Inter-agency incident management admin. team that meets regularly	No		No		No		No	
Major incident response team that responds to major incidents	No		No		No		No	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		No		No	
Methods of Communication Used On-Site at an Incident								
Police								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Fire								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
DOT								
Two-way radio	No		No		No		No	
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Towing								
Two-way radio	No		No		No		No	

	Fort Worth City		Garland City		Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
800 MHz trunked radio	No		No		No		No	
Cellular telephone	No		No		No		No	
Hand-held (i.e., walkie-talkie)	No		No		No		No	
Automated data systems (i.e., CAD)	No		No		No		No	
Other	No		No		No		No	
Which police agencies typically respond to incidents on arterials?								
State Police	No		No		No		No	
County Police or Sheriff	No		No		No		No	
City Police	No		No		No		No	
Who provides on-site emergency medical response?								
Fire	No		No		No		No	
Emergency Management Service Agency	No		No		No		No	
Private hospital	No		No		No		No	
Has a multi-agency contact list been developed in area containing the names, phone numbers, etc. for the appropriate response personnel?	NR		NR		NR		NR	
Is the Incident Command System used to manage incident scenes?	NR		NR		NR		NR	
Is there a legal specification by state law or formal agreement as to who is "in charge" at the incident scene?								
Specified by state law?	No		No		No		No	
Formal agreement?	No		No		No		No	
Not specified or don't know?	No		No		No		No	
On-scene command post used to manage activities of responding agencies?	NR		NR		NR		NR	
Are there communication linkages to a communications traffic/freeway mgt center?	NR		NR		NR		NR	
Plan developed and adopted by responding agencies for staging and parking response vehicles and equip. at incident site that minimizes lane blockage and facilitates the re-opening of lanes?	NR		NR		NR		NR	
Respondents protected through law or court opinion for liability claims for damages to vehicles or cargoes during clearance activities?	NR		NR		NR		NR	
Are overturned tank trucks, which are intact and not leaking, uprighted without first off-loading?	NR		NR		NR		NR	
Does your state or local jurisdiction have a law that requires drivers involved in property-damage-only accidents to move the vehicles from travel lanes to a safe location to exchange info and wait for police?	NR		NR		NR		NR	
Have laws or policies regarding the removal of stalled/abandoned vehicles from freeway shoulders?	NR		NR		NR		NR	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	NR		NR		NR		NR	
Have policies or procedures for quick removal of vehicles?	NR		NR		NR		NR	
Is Total Station equipment used to investigate major incidents?	NR		NR		NR		NR	
Handling of Towing Responses to Incidents								
Formal contract based on qualifications?	No		No		No		No	
Rotation with companies under contract?	No		No		No		No	

Arterial Management
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	Fort Worth City		Garland City		Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR		NR		NR	
Rotation list with minimal qualifications?	No		No		No		No	
In towing qualifications, do you require towers to be certified under the								
Towing and Recovery Ass. of America's National Drivers Cert. Program?	NR		NR		NR		NR	
_____								
DK: Don't know								
NR: No Response								
Leg: Legislation or action being planned								

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Richardson City		Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	2005	1999	2005	1999	2005	1999	2005
Agency Returned Survey?	Yes		Yes		Yes		11	
ARTERIAL MANAGEMENT SECTION								
Number of arterial miles that agency owns or maintains	42		NR		1,098		3,850	
Number of arterial miles that is used for planning	42		NR		1,098		3,636	
Number of highway-rail intersections that agency maintains	0		NR		10		307	
Number of highway-rail intersections that is used for planning	0		NR		0		20	
Type of facilities used to conduct arterial management activities								
Activities housed in a free-standing dedicated building?	No		No		No		0	
Activities housed in a building shared with other activities?	Yes		No		Yes		7	
Activities conducted in a dedicated control room?	Yes		No		No		3	
Control room contains operator console(s)?	Yes		No		No		3	
Control room contains electronic wall map?	No		No		No		0	
Control room contains CCTV display(s)?	Yes		No		No		3	
Activities conducted in a room containing workstations or PCs that manage traffic?	Yes		No		Yes		5	
Facilities are electronically linked to other transportation mgt facilities?	No		No		No		2	
Staffing and hours of operation of arterial management activities								
Number of full-time agency staff members	1		NR		10		13	
Number of full time contractor staff members	NR		NR		0		0	
Number of part-time agency staff members	NR		NR		10		11	
Number of part-time contractor staff members	NR		NR		0		0	
Staffed 24 hours day by agency staff or by others	NR		NR		NR		0	
Staffed during peak hours only by agency staff or by others	NR		NR		agency		0	
Staffed by others during off-peak hours	No		No		No		0	
Agency staff perform transportation management as an ancillary duty	No		No		Yes		3	
Agency staff dedicated to transportation management duty	No		No		No		0	
Types of operations conducted for arterial management								
Incident detection and management?	Yes		No		No		2	
This metropolitan area?	No		No		No		0	
Other metropolitan area?	No		No		No		0	
Monitoring and troubleshooting status of system components?	No		No		Yes		5	
Radio communications with other agencies?	No		No		No		0	
Exchange of electronic data with other agencies such as computer aided dispatch?	No		No		No		1	
Manual override of traffic signal timing plans	Yes		No		Yes		5	
Operating transportation mgt roadside devices (e.g., VMS, CCTV, etc.)	Yes		No		No		2	

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Richardson City		Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Describe agency's role in traffic signal control	all signals on all roads that are contained by the city limits		NR		State routes only			
Traffic Signals Operated by Agency								
Number of signalized intersections operated and owned by agency	94	101	NR	NR	297	357	756	891
Number of signalized intersections operated by agency but owned by another	8	8	NR	NR	0	0	64	20
Total number of signalized intersections operated by agency	102	109	0	150	297	357	2,977	3,344
Characteristics of signalized intersections that agency operates								
Under closed loop or central system control	0	0	NR	NR	15	22	1,888	2,550
Under real-time traffic adaptive control using advanced software	0	0	NR	NR	0	0	0	0
Using SCOOT	No		No		No			
Using SCATS	No		No		No			
Name of software	NR		NR		NR			
Allow signal preemption for emergency vehicles	98	109	NR	NR	75	90	766	934
Allow signal priority for transit vehicles	0	0	NR	NR	0	0	25	25
Within 200 feet of a highway-rail intersection	3	2	NR	NR	10	12	127	115
Within 200 feet of a highway-rail intersection that adjust signal timing	0	2	NR	NR	10	12	87	91
Software used to control the signals agency operates								
Date of last upgrade to traffic signal control system software?	1997		NR		1998			
How often do you update signal timing?	frequently (monthly for minor changes)		NR		As necessary, normally every couple of years			
Software used and number of signalized intersections under control (1999, 2005)	PASSER II - for timing plans, 80, 83 NAZTEC, 102, 109		NR		ECONOLITE, NR, 7 EAGLE, 15, 24			
Controllers used to control signals								
NEMA	102	109	0	0	297	357	1,222	1,089
170/179	0	0	0	0	0	0	0	0
2070 controller	0	0	0	0	0	0	0	180
Other	0	0	0	0	0	0	0	0
Technologies Associated with Highway-Rail Intersections								
Total number of highway-rail intersections under electronic surveillance	NR	NR	NR	NR	10	10	27	48
Highway-Rail intersection capapbilities								
Video surveillance	0	0	0	0	0	0	5	26
Electronic surveillance other than video	0	0	0	0	2	2	2	2
Ability to predict train arrival electronically	0	0	0	0	10	10	22	22
Equipped with electronic traffic violator devices	0	0	0	0	10	10	10	10
Other	0	0	0	0	0	0	0	0
Real-Time Electronic Traffic Data Collection Technologies								
Total number of signalized intersections covered by electronic surveillance	102	109	NR	NR	NR	NR	387	504

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Richardson City		Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	2005	1999	2005	1999	2005	1999	2005
Number of signalized intersections with data collection technologies								
Loop detectors	102	109	0	0	0	0	382	447
Video detection cameras	0	0	0	0	0	0	4	16
Probe readers reading toll tags	0	0	0	0	0	0	0	0
Probe readers reading license plates	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Roadside Technologies used to Distribute Traveler Information								
Number deployed								
Highway Advisory Radio	NR	NR	NR	NR	NR	NR	0	5
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	0	0
VMS controlling parking access	NR	NR	NR	NR	NR	NR	0	0
Miles covered								
Highway Advisory Radio	NR	NR	NR	NR	NR	NR	0	11
In-Vehicle Signing (IVS)	NR	NR	NR	NR	NR	NR	0	0
Variable Message Signs (VMS) on Arterials								
Candidate locations for deployment of VMS where VMS has been deployed	NR	NR	NR	NR	NR	NR	0	85
Candidate locations for deployment of VMS	NR	NR	NR	NR	NR	NR	0	137
Communication Technologies								
Signalized intersections communicated with by each type of communication								
Twisted pair cable	99	106	0	0	0	0	541	300
Coaxial cable	0	0	0	0	0	0	0	0
Fiber-optic cable	0	0	0	0	0	0	0	523
Other (e.g., wireless, dial-up modems, leased lines, etc.)	1	1	0	0	15	24	44	49
Does agency convey information on highway-rail intersection crossing status to travelers via roadside media such as VMS or HAR?	No		No		No		0	
ITS Standards Used Related to Traffic Signal Control								
Advanced Transportation Controller (ATC) Software Application Interface (ITE 9603-1)	No		No		No		0	
ATC Physical Cabinet Functional Design (ITE-9603-2)	No		No		No		0	
ATC Functionality and Interface Definitions (ITE-9603-3)	No		No		No		0	
Natl. Trans. Communications for ITS Protocol (NTCIP) Class B Profile (AASHTO TS 3.3)	No		No		No		1	
NTCIP Data Collection and Monitoring Devices (AASHTO TS 3.DCM)	No		No		No		1	
NTCIP Object Definitions for Video Camera Control (AASHTO TS 3.VCC)	No		No		No		0	
NTCIP Object Definitions for Actuated Traffic Signal Controller Units (AASHTO TS 3.5)	No		No		No		1	
Would agency be willing to participate in testing of ITS Standards?	Yes		NR		No		6	
Have agreements in place with other agencies to use similar hardware and software to aid maintenance and interoperability?	No		NR		No		1	
INCIDENT MANAGEMENT ON ARTERIAL STREETS								
Receive information on highway-rail intersection crossing blockages for the purpose of managing incident response?	No		No		No		0	
Use of Service Patrols to Assist in Detection and Response to Incidents								
Publicly operated service patrol vehicles	No		No		No		1	

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Richardson City		Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	2005	1999	2005	1999	2005	1999	2005
Privately operated service patrol vehicles operated under public contract	No		No		No		0	
Total number of arterial miles patrolled by these services	NR	NR	NR	NR	NR	NR	0	0
Miles Covered by Methods to Detect and Verify Incidents								
Free cellular phone call to a dedicated phone number other than 911	0	0	0	0	0	0	0	0
Free cellular phone call to an area radio station	0	0	0	0	0	0	0	0
Police patrols	54	54	0	0	0	0	54	54
Computer algorithms linked to traffic surveillance equipment	0	0	0	0	0	0	0	0
CCTV	54	54	0	0	0	0	56	92
Private sector sources (e.g., Shadow Traffic, Smart Routes)	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Procedures in place for Arterial Incident Response?								
Working agreement(s)/arrangement(s) with other agencies	No		No		No		0	
Inter-agency incident management admin. team that meets regularly	Yes		No		No		1	
Major incident response team that responds to major incidents	Yes		No		No		1	
Set of goals/objectives for incident mgt that has been adopted by agencies in region	No		No		No		0	
Methods of Communication Used On-Site at an Incident								
Police								
Two-way radio	Yes		No		No		1	
800 MHz trunked radio	No		No		No		1	
Cellular telephone	No		No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		No		0	
Automated data systems (i.e., CAD)	No		No		No		0	
Other	Yes		No		No		1	
Fire								
Two-way radio	Yes		No		No		1	
800 MHz trunked radio	No		No		No		1	
Cellular telephone	No		No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		No		0	
Automated data systems (i.e., CAD)	No		No		No		0	
Other	Yes		No		No		1	
DOT								
Two-way radio	No		No		No		0	
800 MHz trunked radio	No		No		No		0	
Cellular telephone	No		No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		No		0	
Automated data systems (i.e., CAD)	No		No		No		0	
Other	No		No		No		0	
Towing								
Two-way radio	Yes		No		No		1	

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Richardson City		Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		Totals	
	1999	2005	1999	2005	1999	2005	1999	2005
800 MHz trunked radio	No		No		No		0	
Cellular telephone	No		No		No		0	
Hand-held (i.e., walkie-talkie)	No		No		No		0	
Automated data systems (i.e., CAD)	No		No		No		0	
Other	Yes		No		No		1	
Which police agencies typically respond to incidents on arterials?								
State Police	No		No		No		0	
County Police or Sheriff	No		No		No		0	
City Police	Yes		No		No		2	
Who provides on-site emergency medical response?								
Fire	Yes		No		No		2	
Emergency Management Service Agency	No		No		No		0	
Private hospital	No		No		No		0	
Has a multi-agency contact list been developed in area containing the names, phone numbers, etc. for the appropriate response personnel?	Yes		NR		NR		1	
Is the Incident Command System used to manage incident scenes?	Yes		NR		NR		1	
Is there a legal specification by state law or formal agreement as to who is "in charge" at the incident scene?								
Specified by state law?	Yes		No		No		1	
Formal agreement?	No		No		No		0	
Not specified or don't know?	No		No		No		1	
On-scene command post used to manage activities of responding agencies?	Yes		NR		NR		1	
Are there communication linkages to a communications traffic/freeway mgt center?	Yes		NR		NR		1	
Plan developed and adopted by responding agencies for staging and parking response vehicles and equip. at incident site that minimizes lane blockage and facilitates the re-opening of lanes?	Yes		NR		NR		1	
Respondents protected through law or court opinion for liability claims for damages to vehicles or cargoes during clearance activities?	Yes		NR		NR		1	
Are overturned tank trucks, which are intact and not leaking, uprighted without first off-loading?	No		NR		NR		0	
Does your state or local jurisdiction have a law that requires drivers involved in property-damage-only accidents to move the vehicles from travel lanes to a safe location to exchange info and wait for police?	Yes		NR		NR		2	
Have laws or policies regarding the removal of stalled/abandoned vehicles from freeway shoulders?	Yes		NR		NR		1	
Hours abandoned vehicles are allowed to remain on a freeway shoulder?	25-36		NR		NR		0	
Have policies or procedures for quick removal of vehicles?	Yes		NR		NR		2	
Is Total Station equipment used to investigate major incidents?	Yes		NR		NR		1	
Handling of Towing Responses to Incidents								
Formal contract based on qualifications?	Yes		No		No		1	
Rotation with companies under contract?	No		No		No		1	

Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Richardson City		Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Separate lists kept for light and heavy response and for specialty recovery?	NR		NR		NR		0	
Rotation list with minimal qualifications?	No		No		No		0	
In towing qualifications, do you require towers to be certified under the								
Towing and Recovery Ass. of America's National Drivers Cert. Program?	Yes		NR		NR		2	
_____								
DK: Don't know								
NR: No Response								
Leg: Legislation or action being planned								

Appendix G
Arterial Management Integration

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Arlington City		Carrollton City		Dallas City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes	
Arterial Management Section						
Arterial Mgt. agencies in metropolitan area with which you share info.						
Share Timing Plans Information	None listed	Texas Department of Transportation Fort Worth District	short survey	None listed	short survey	None listed
Coordinate Changes to Timing Plans	None listed	Arlington City, Fort Worth City, Grand Prairie City, Texas Department of Transportation Fort Worth District	short survey	None listed	short survey	None listed
Turn over Control of Signals	None listed	None listed	None listed	None listed	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and						
conditions information, share infrastructure or coordinates operation						
Freeway Management Agencies						
Provide Information	None listed	Texas Department of Transportation Fort Worth District, Grand Prairie, Fort Worth	None listed	None listed	short survey	None listed
Share Infrastructure	None listed	Texas Department of Transportation Fort Worth District	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Texas Department of Transportation Fort Worth District, Grand Prairie, Fort Worth	None listed	None listed	None listed	None listed
Incident Management Agencies						

Agency Name	Arlington City		Carrollton City		Dallas City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Provide Information	None listed	Texas Department of Transportation Fort Worth District, Grand Prairie, Fort Worth	None listed	None listed	short survey	None listed
Share Infrastructure	None listed	Texas Department of Transportation Fort Worth District, Grand Prairie, Fort Worth	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Texas Department of Transportation Fort Worth District, Grand Prairie, Fort Worth	None listed	None listed	None listed	None listed
Public Transit Operators Agencies						
Provide Information	None listed	None listed	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed	None listed	None listed
Arterial Management Agencies						
Provide Information	None listed	Fort Worth City, Grand Prairie City, Texas Department of Transportation Fort Worth District	None listed	None listed	None listed	None listed

Agency Name	Arlington City		Carrollton City		Dallas City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Share Infrastructure	None listed	Fort Worth City, Grand Prairie City, Texas Department of Transportation Fort Worth District	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Fort Worth City, Grand Prairie City, Texas Department of Transportation Fort Worth District	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others						
Freeway Management agencies from which your agency receives						
freeway travel times, speeds, and conditions	None listed	Texas Department of Transportation Fort Worth District, Grand Prairie	None listed	None listed	None listed	None listed
Public Transit operators from which your agency receives						
arterial travel times derived from vehicle probes	None listed	None listed	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives						
incident clearance and/or incident severity, location, and type information						
Receive information on Incident Clearance	None listed	Texas Department of Transportation Fort Worth District	None listed	None listed	None listed	None listed
Receive information on Incident Severity, Location, and Type	None listed	Texas Department of Transportation Fort Worth District	None listed	None listed	None listed	None listed
Toll Collection agencies from which your agency receives arterial travel						

Agency Name	Arlington City		Carrollton City		Dallas City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
times derived from vehicles probes	None listed	None listed	None listed	None listed	None listed	None listed
Arterial Incident Management Section						
Agencies your agency provides incident severity, location, and type info.						
and/or shares infrastructure and/or coordinates operation						
Emergency Management Agencies						
Provide Information	None listed	None listed	None listed	None listed	short survey	None listed
Share Infrastructure	None listed	None listed	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed	None listed	None listed
Freeway Management Agencies						
Provide Information	None listed	None listed	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed	None listed	None listed
Public Transit Operators						
Provide Information	None listed	None listed	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others						

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Arlington City		Carrollton City		Dallas City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Emergency Management agencies from which your agency receives						
arterial incident clearance and/or arterial incident severity						
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed	short survey	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed	short survey	None listed
Arterial Management agencies from which your agency receives						
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives						
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Denton City		Fort Worth City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	None listed	None listed	short survey	None listed
Coordinate Changes to Timing Plans	None listed	None listed	short survey	None listed
Turn over Control of Signals	None listed	None listed	short survey	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Incident Management Agencies				

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Denton City		Fort Worth City	
	1999	**2005**	**1999**	**2005**
Provide Information	None listed	Texas Department of Transportation Dallas District	None listed	None listed
Share Infrastructure	None listed	Texas Department of Transportation Dallas District	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators Agencies				
Provide Information	None listed	Rapid Transit, Denton City Span, Fort Worth Transportation Authority (The T)	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Rapid Transit, Denton City Span, Fort Worth Transportation Authority (The T)	None listed	None listed
Arterial Management Agencies				
Provide Information	None listed	Texas Department of Transportation Dallas District	None listed	None listed

Agency Name	Denton City		Fort Worth City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	Texas Department of Transportation Dallas District	None listed	None listed
Coordinate Operation	None listed	Texas Department of Transportation Dallas District	None listed	None listed
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	Texas Department of Transportation Dallas District	None listed	None listed
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	Denton City	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	None listed	Texas Department of Transportation Dallas District	short survey	None listed
Receive information on Incident Severity, Location, and Type	None listed	Texas Department of Transportation Dallas District	short survey	None listed
Toll Collection agencies from which your agency receives arterial travel				

Agency Name	Denton City		Fort Worth City	
	1999	**2005**	**1999**	**2005**
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Denton City		Fort Worth City	
	1999	**2005**	**1999**	**2005**
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				
Receive Arterial Incident Clearance Information	None listed	None listed	short survey	None listed
Receive Arterial Incident Severity Information	None listed	None listed	short survey	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Garland City		Grand Prairie City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	Dallas City Department of Public Works, Garland City, Mesquite City, Richardson City Traffic & Transportation	None listed	None listed	Dallas City
Coordinate Changes to Timing Plans	Garland City	None listed	Arlington City	Arlington City, Dallas City
Turn over Control of Signals	Garland City	None listed	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Share Infrastructure	None listed	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Coordinate Operation	None listed	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Incident Management Agencies				

Agency Name	Garland City		Grand Prairie City	
	1999	**2005**	**1999**	**2005**
Provide Information	Texas Department of Transportation Dallas District	None listed	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Share Infrastructure	None listed	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Coordinate Operation	None listed	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Public Transit Operators Agencies				
Provide Information	Dallas Area Rapid Transit	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Dallas Area Rapid Transit	None listed	None listed
Arterial Management Agencies				
Provide Information	Dallas City Department of Public Works, Garland City, Mesquite City, Richardson City Traffic & Transportation	Texas Department of Transportation Dallas District	Arlington City	Arlington City, Dallas City, Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District

Agency Name	Garland City		Grand Prairie City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	Garland City	Dallas City Department of Public Works, Mesquite City, Richardson City Traffic & Transportation, Texas Department of Transportation Dallas District	None listed	None listed
Coordinate Operation	Dallas City Department of Public Works, Garland City, Mesquite City, Richardson City Traffic & Transportation	Dallas City Department of Public Works, Texas Department of Transportation Dallas District	Arlington City	Arlington City, Dallas City, Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	Dallas Area Rapid Transit	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Receive information on Incident Severity, Location, and Type	Texas Department of Transportation Dallas District	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District
Toll Collection agencies from which your agency receives arterial travel				

Agency Name	Garland City		Grand Prairie City	
	1999	**2005**	**1999**	**2005**
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Garland City		Grand Prairie City	
	1999	**2005**	**1999**	**2005**
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Irving City		Richardson City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	None listed	Coppell	Dallas City Department of Public Works, Garland City, Plano City	Plano City
Coordinate Changes to Timing Plans	Coppell	Dallas City, Grand Prairie City, Texas Department of Transportation Dallas District, Coppell	Dallas City Department of Public Works, Garland City, Plano City	Dallas City Department of Public Works, Garland City, Plano City
Turn over Control of Signals	None listed	None listed	None listed	None listed
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Share Infrastructure	None listed	None listed	None listed	Texas Department of Transportation Dallas District
Coordinate Operation	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Incident Management Agencies				

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Irving City		Richardson City	
	1999	**2005**	**1999**	**2005**
Provide Information	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Share Infrastructure	None listed	None listed	None listed	Texas Department of Transportation Dallas District
Coordinate Operation	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Public Transit Operators Agencies				
Provide Information	None listed	Dallas Area Rapid Transit	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Dallas Area Rapid Transit	None listed	None listed
Arterial Management Agencies				
Provide Information	None listed	Dallas City, Fort Worth City, Grand Prairie City, Texas Department of Transportation Dallas District	None listed	None listed

Agency Name	Irving City		Richardson City	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	Dallas City, Fort Worth City, Grand Prairie City, Texas Department of Transportation Dallas District	None listed	None listed
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District	None listed	Texas Department of Transportation Dallas District
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Receive information on Incident Severity, Location, and Type	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District, Texas Department of Transportation Fort Worth District	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Toll Collection agencies from which your agency receives arterial travel				

Agency Name	Irving City		Richardson City	
	1999	**2005**	**1999**	**2005**
times derived from vehicles probes	None listed	Texas Turnpike Authority	None listed	Texas Turnpike Authority
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	None listed	Richardson City Fire Department, Richardson City Police Department, Texas Department of Transportation Dallas District	Richardson City Fire Department, Richardson City Police Department, Texas Department of Transportation Dallas District
Share Infrastructure	None listed	None listed	Richardson City Fire Department, Richardson City Police Department	Richardson City Fire Department, Richardson City Police Department, Texas Department of Transportation Dallas District
Coordinate Operation	None listed	None listed	Richardson City Fire Department, Richardson City Police Department	Richardson City Fire Department, Richardson City Police Department, Texas Department of Transportation Dallas District
Freeway Management Agencies				
Provide Information	None listed	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District
Share Infrastructure	None listed	None listed	None listed	Texas Department of Transportation Dallas District
Coordinate Operation	None listed	None listed	None listed	Texas Department of Transportation Dallas District
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Irving City		Richardson City	
	1999	**2005**	**1999**	**2005**
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	Texas Department of Transportation Dallas District	Texas Department of Transportation Dallas District

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Arterial Mgt. agencies in metropolitan area with which you share info.				
Share Timing Plans Information	None listed	None listed	Arlington City, Fort Worth City, Grand Prairie City, South Lake, Hurst	Hurst
Coordinate Changes to Timing Plans	None listed	None listed	Arlington City, Fort Worth City, Grand Prairie City, South Lake, Hurst	Arlington City, Fort Worth City, Grand Prairie City, South Lake, Hurst
Turn over Control of Signals	None listed	None listed	Arlington City, Fort Worth City, Grand Prairie City, South Lake, Hurst	Arlington City, Fort Worth City, Grand Prairie City, South Lake, Hurst
Agencies your agency provides arterial travel times, speeds, and				
conditions information, share infrastructure or coordinates operation				
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Incident Management Agencies				

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Arterial Management Agencies				
Provide Information	None listed	None listed	None listed	None listed

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	Texas Department of Transportation Dallas District	None listed
Public Transit operators from which your agency receives				
arterial travel times derived from vehicle probes	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident clearance and/or incident severity, location, and type information				
Receive information on Incident Clearance	None listed	None listed	Texas Department of Transportation Dallas District	Arlington City, Fort Worth City, D/FW Airport
Receive information on Incident Severity, Location, and Type	None listed	None listed	Texas Department of Transportation Dallas District	Arlington City, Fort Worth City, D/FW Airport
Toll Collection agencies from which your agency receives arterial travel				

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
times derived from vehicles probes	None listed	None listed	None listed	None listed
Arterial Incident Management Section				
Agencies your agency provides incident severity, location, and type info.				
and/or shares infrastructure and/or coordinates operation				
Emergency Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Freeway Management Agencies				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Public Transit Operators				
Provide Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Coordinate Operation	None listed	None listed	None listed	None listed
Receiving real-time information via electronic means from others				

Arterial Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Dallas District		Texas Department of Transportation Fort Worth District	
	1999	**2005**	**1999**	**2005**
Emergency Management agencies from which your agency receives				
arterial incident clearance and/or arterial incident severity				
Receive Arterial Incident Clearance Information	None listed	None listed	None listed	None listed
Receive Arterial Incident Severity Information	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions	None listed	None listed	None listed	None listed
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions	None listed	None listed	None listed	None listed

*short survey: Agency responded using a short survey. The survey did not include names of individual agencies, but only identified whether integration exists.

Appendix H
Arterial Management Information Collection and Dissemination

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Arlington City		Carrollton City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	Traffic volumes, Phasing/cycle lengths, Emergency vehicle signal preemption	Weather conditions, Current work zones, Scheduled work zones, Highway operations coordination information	NR	NR
Archived by your agency	Traffic volumes	Emergency vehicle signal preemption, Weather conditions, Current work zones, Scheduled work zones, Highway operations coordination information	NR	NR
Transferred to another agency by your agency	NR	Current work zones, Scheduled work zones, Highway operations coordination information	NR	NR
Importance of making information available to the public				
Ranked High	Emergency vehicle signal preemption, Current work zones, Scheduled work zones, Highway operations coordination information		NR	
Ranked Medium	Traffic volumes, Weather conditions		NR	
Ranked Low	Phasing/cycle lengths, Road conditions		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Arlington City		Carrollton City	
	1999	**2005**	**1999**	**2005**
Groups that make requests for the data	State DOT personnel, Media (I.e., TV stations, radio stations), MPOs, Consultants		NR	
What is the data used for?	Traffic analysis, Construction impact determination, Planning, Incident detection algorithm development, Roadway impact analysis, Dissemination to the public		NR	
Methods used to disseminate arterial information to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	Internet Web sites
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting arterial conditions	NR		NR	
Telephone system for reporting arterial information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	
Arterial Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting incident information	NR		NR	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	NR	NR	Emergency vehicle signal preemption	Traffic volumes, Traffic speeds, Vehicle classification, Emergency vehicle signal preemption
Archived by your agency	NR	NR	NR	NR
Transferred to another agency by your agency	NR	NR	NR	NR
Importance of making information available to the public				
Ranked High	NR		NR	
Ranked Medium	NR		Traffic volumes, Traffic speeds, Vehicle classification, Emergency vehicle signal preemption	
Ranked Low	NR		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Dallas City		Denton City	
	1999	**2005**	**1999**	**2005**
Groups that make requests for the data	NR		State DOT personnel, MPOs, Consultants, Developers	
What is the data used for?	NR		Do not know, Traffic analysis, Planning, Roadway impact analysis, Dissemination to the public	
Methods used to disseminate arterial information to the public				
Technologies your agency uses to disseminate:	NR	Internet Web sites, Pagers or personal data assistants, E-mail or other direct PC communication	NR	Internet Web sites
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting arterial conditions	NR		NR	
Telephone system for reporting arterial information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR			NR
Arterial Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	NR	Internet Web sites, Pagers or personal data assistants, E-mail or other direct PC communication	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting incident information	NR		NR	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Fort Worth City		Garland City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	NR	NR	Traffic volumes, Traffic speeds, Turning movements, Phasing/cycle lengths, Emergency vehicle signal preemption, Current work zones, Scheduled work zones, Highway operations coordination information	Road conditions, Incidents
Archived by your agency	NR	NR	Traffic volumes, Turning movements, Phasing/cycle lengths, Emergency vehicle signal preemption	NR
Transferred to another agency by your agency	NR	NR	NR	NR
Importance of making information available to the public				
Ranked High	NR		Traffic volumes, Road conditions, Incidents, Current work zones, Scheduled work zones, Intermodal (air, rail, water) connections	
Ranked Medium	NR		Phasing/cycle lengths, Emergency vehicle signal preemption	
Ranked Low	NR		Turning movements, Route designations (snow emergency, etc.), Weather conditions, Emergency/evacuation routes and procedures, Highway operations coordination information	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Fort Worth City		Garland City	
	1999	**2005**	**1999**	**2005**
Groups that make requests for the data	NR		MPOs, Consultants	
What is the data used for?	NR		Traffic analysis, Planning, Roadway impact analysis	
Methods used to disseminate arterial information to the public				
Technologies your agency uses to disseminate:	NR	NR	Dedicated cable TV, Cell phone/voice, Cell phone/data, Facsimile	Telephone system, Internet Web sites, E-mail or other direct PC communication
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	Dedicated cable TV, Pagers or personal data assistants, E-mail or other direct PC communication	NR
Internet web site reporting arterial conditions	NR		NR	
Telephone system for reporting arterial information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		TxDOT TMC	
Arterial Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting incident information	NR		NR	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	NR	NR	Traffic volumes, Traffic speeds, Vehicle classification, Turning movements, Phasing/cycle lengths, Incidents, Current work zones, Scheduled work zones, Emergency/evacuation routes and procedures	Queues, Emergency vehicle signal preemption
Archived by your agency	NR	NR	NR	NR
Transferred to another agency by your agency	NR	NR	NR	NR
Importance of making information available to the public				
Ranked High	NR		Traffic speeds, Queues, Road conditions, Incidents, Current work zones, Scheduled work zones, Highway operations coordination information	
Ranked Medium	NR		Traffic volumes, Turning movements, Route designations (snow emergency, etc.), Weather conditions, Emergency/evacuation routes and procedures	
Ranked Low	NR		Lane occupancy, Vehicle classification, Phasing/cycle lengths, Emergency vehicle signal preemption, Transit vehicle signal priority, Intermodal (air, rail, water) connections	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Grand Prairie City		Irving City	
	1999	**2005**	**1999**	**2005**
Groups that make requests for the data	NR		State DOT personnel, Federal DOT personnel, Consultants	
What is the data used for?	NR		Do not know, Traffic analysis	
Methods used to disseminate arterial information to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	Telephone system, Internet Web sites, Pagers or personal data assistants, Kiosks, E-mail or other direct PC communication, Cell phone/voice, Cell phone/data, Facsimile
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	Telephone system, Internet Web sites, Pagers or personal data assistants, E-mail or other direct PC communication, Cell phone/voice, Facsimile	Kiosks, E-mail or other direct PC communication, Cell phone/voice
Internet web site reporting arterial conditions	NR		NR	
Telephone system for reporting arterial information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		TxDOT	
Arterial Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting incident information	NR		NR	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Richardson City		Texas Department of Transportation Dallas District	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Arterial Management Section				
Data collected, archived, and/or transferred to another agency				
Collected by your agency	Traffic volumes, Traffic speeds, Lane occupancy, Vehicle classification, Turning movements, Phasing/cycle lengths, Emergency vehicle signal preemption, Incidents, Current work zones, Scheduled work zones	Traffic volumes, Traffic speeds, Lane occupancy, Vehicle classification, Turning movements, Phasing/cycle lengths, Emergency vehicle signal preemption, Incidents, Current work zones, Scheduled work zones	NR	NR
Archived by your agency	Traffic volumes, Traffic speeds, Lane occupancy, Vehicle classification, Turning movements, Incidents	Traffic volumes, Traffic speeds, Lane occupancy, Vehicle classification, Turning movements, Incidents	NR	NR
Transferred to another agency by your agency	Traffic volumes, Turning movements, Incidents	Traffic volumes, Turning movements, Incidents	NR	NR
Importance of making information available to the public				
Ranked High	Traffic volumes, Incidents, Current work zones, Scheduled work zones		NR	
Ranked Medium	NR		NR	
Ranked Low	Traffic speeds, Lane occupancy, Vehicle classification, Turning movements, Phasing/cycle lengths, Emergency vehicle signal preemption		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Richardson City		Texas Department of Transportation Dallas District	
	1999	**2005**	**1999**	**2005**
Groups that make requests for the data	Universities, Media (I.e., TV stations, radio stations), MPOs, Developers		NR	
What is the data used for?	Traffic analysis, Planning, Roadway impact analysis, Dissemination to the public		NR	
Methods used to disseminate arterial information to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting arterial conditions	NR		NR	
Telephone system for reporting arterial information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	
Arterial Incident Management Section				
Methods used to distribute incident location and severity information				
to the public				
Technologies your agency uses to disseminate:	NR	NR	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR	NR	NR
Internet web site reporting incident information	NR		NR	
Telephone system for reporting incident information to the public	NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Fort Worth District	
	1999	**2005**
Agency Returned Survey?	Yes	
Arterial Management Section		
Data collected, archived, and/or transferred to another agency		
Collected by your agency	Traffic volumes, Phasing/cycle lengths, Current work zones, Scheduled work zones	Traffic volumes, Phasing/cycle lengths, Current work zones, Scheduled work zones
Archived by your agency	NR	NR
Transferred to another agency by your agency	NR	NR
Importance of making information available to the public		
Ranked High	Current work zones, Scheduled work zones	
Ranked Medium	NR	
Ranked Low	Traffic volumes, Phasing/cycle lengths	

Data Collection and Dissemination: Arterial Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Texas Department of Transportation Fort Worth District	
	1999	**2005**
Groups that make requests for the data	State DOT personnel, Consultants, Citizen Requests	
What is the data used for?	Do not know, Planning	
Methods used to disseminate arterial information to the public		
Technologies your agency uses to disseminate:	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR
Internet web site reporting arterial conditions	NR	
Telephone system for reporting arterial information to the public	NR	
Organizations your agency sends information for dissemination to the public	NR	
Arterial Incident Management Section		
Methods used to distribute incident location and severity information		
to the public		
Technologies your agency uses to disseminate:	NR	NR
Technologies your agency (through another agency or org.) uses to disseminate:	NR	NR
Internet web site reporting incident information	NR	
Telephone system for reporting incident information to the public	NR	
Organizations your agency sends information for dissemination to the public	NR	

Appendix I
Transit Management Components

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)		Grand Prairie City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
Number of vehicles used in revenue service								
Fixed Route Bus	287	NR	4	NR	78	70	NR	NR
Heavy or Rapid Rail	NR	NR	0	NR	NR	NR	NR	NR
Light Rail	NR	NR	0	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	5	NR	70	100	NR	NR
Commuter Rail	NR	NR	0	NR	NR	20	NR	NR
Ferry Boat	NR	NR	0	NR	NR	NR	NR	NR
Have of plan to have an Automated Vehicle Location System?	No		No		Yes		No	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	Yes	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Sign/Odometer	No	No	No	No	No	No	No	No
Dead-Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles Equipped with AVL								
Fixed Route Bus	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	20	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Motor Buses Operated as Vehicle Probes								
Number of Motor Buses equipped as probes on freeways?	NR		NR		NR		NR	
Number of Motor Buses equipped as probes on arterials?	NR		NR		NR		NR	
Have Organized Regional Incident Management Program?	Yes		Yes		No		Yes	
Have Automated Traveler Information System?	No		No		Yes		No	

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)		Grand Prairie City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Services Automated Traveler Info. System Applies:								
Fixed Route	No		No		Yes		No	
Heavy Rail	No		No		No		No	
Light Rail	No		No		No		No	
Demand Responsive	No		No		Yes		No	
Commuter Rail	No		No		Yes		No	
Ferry	No		No		No		No	
Locations where traveler information is displayed to public								
Number of bus stops on fixed transit routes	NR	NR	NR	NR	NR	15	NR	NR
Bus stops on fixed transit routes that display traveler info to the public	NR	NR	NR	NR	NR	15	NR	NR
Number of rail stations	NR	NR	NR	NR	NR	6	NR	NR
Number of rail stations that display traveler information	NR	NR	NR	NR	NR	6	NR	NR
Number of other locations that display traveler information to public	NR	NR	NR	NR	NR	10	NR	NR
Number of vehicles the traveler information system has available								
Fixed Route Bus	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	20	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Deployment of Communications Technology								
Attributes of Radio System:								
Digital?	Yes		No		No		Yes	
Analog?	No		Yes		Yes		No	
Trunked?	Yes		Yes		No		Yes	
Regular?	No		No		Yes		No	
Services that use a Digital or Trunked Radio System								
Digital Only								
Fixed Route Bus	No	No	No	No	No	Yes	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	Yes	No	No
Commuter Rail	No	No	No	No	No	Yes	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Trunked Only								
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)		Grand Prairie City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Have of plan to have Automatic Passenger Counters (APCs)?	No		No		Yes		No	
Methods used to count passengers								
Treadle Mats	No		No		No		No	
Infrared Beams	No		No		No		No	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	Yes	No	No
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Backup Technologies								
GPS	No	No	No	No	No	No	No	No
Differential GPS	No	No	No	No	No	No	No	No
Signpost/Odometer	No	No	No	No	No	No	No	No
Dead_Reckoning	No	No	No	No	No	No	No	No
LORAN C	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Number of Vehicles with APCs								
Fixed Route Bus	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	20	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Remote Real-Time Monitoring and Computer Assisted Dispatching								
Remote Real-Time Monitoring								
Fixed Route Bus	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	20	NR	NR

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)		Grand Prairie City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Automated Dispatching or Control Software								
Fixed Route Bus	287	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	20	NR	NR
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
Coordinate or plan to coordinate travel request and vehicle								
dispatching for multiple agencies?	No		No		No		No	
Is there or will there be a Transportation Management Center								
(TMC) in the region that controls transit and highway modes?	NR		No		NR		No	
Modes that TMC currently controls:								
Highways	No	No	No	No	No	No	No	No
Fixed Route Bus	No	No	No	No	No	No	No	No
Heavy or Rapid Rail	No	No	No	No	No	No	No	No
Light Rail	No	No	No	No	No	No	No	No
Demand Responsive	No	No	No	No	No	No	No	No
Commuter Rail	No	No	No	No	No	No	No	No
Ferry Boat	No	No	No	No	No	No	No	No
Other	No	No	No	No	No	No	No	No
Priority at Traffic Signals and Ramp Meter Priority								
Priority at Traffic Signals								
Fixed Route Bus	NR	NR	NR	NR	NR	70	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	100	NR	NR
Ramp Meter Priority								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	NR	NR	NR	NR
Number of Vehicles Equipped with Navigation Aids								
Fixed Route Bus	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive	NR	NR	NR	NR	25	100	NR	NR
Commuter Rail	NR	NR	NR	NR	NR	20	NR	NR

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)		Grand Prairie City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Ferry Boat	NR	NR	NR	NR	NR	NR	NR	NR
ITS Standards Used Related to Transit Management								
TCIP On Boad Objects (TCIP-OB)	No		No		No		No	
TCIP Traffic Management Objects (TCIP-TM)	No		No		No		No	
TCIP Common Public Transportation Objects (TCIP-CPT)	No		No		No		No	
TCIP Passenger Information Objects (TCIP-PI)	No		No		No		No	
TCIP Incident Management Objects (TCIP-IM)	No		No		No		No	
TCIP Fare Collection Objects (TCIP-FC)	No		No		Yes		No	
TCIP Spatial Representation Objects (TCIP-SP)	No		No		No		No	
TCIP Control Center Objects (TCIP-CC)	No		No		No		No	
TCIP Scheduling/Runcutting Objects (TCIP-SCH)	No		No		No		No	
Send data communication between micro computer and heavy duty								
vehicle applications (SAE J1708)	No		No		Yes		No	
Would agency be willing to participate in testing of ITS Standards?	No		Yes		Yes		No	
Have agreements in place with other agencies to use similar hardware								
and software to aid maintenance and interoperability?	No		No		No		No	
Electronic Fare Payment								
Have full operational Electronic Fare Payment System?	No		No		Yes		No	
Methods of Fare Payment								
Stored value card with fare deducted for each trip								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Debit Card	No		No		Yes		No	
Billed by the month for trips taken								
Magnetic Stripe	No		No		No		No	
Smart Card	No		No		No		No	
Credit Card	No		No		Yes		No	
Monthly Pass								
Magnetic Stripe	No		No		Yes		No	
Smart Card	No		No		Yes		No	
Vehicles/Stations Equipped with Automated Payment Mechanism								
Magnetic Stripe Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)		Grand Prairie City	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Demand Responsive Vehicles	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	6	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Smart Card Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	6	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Credit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	6	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
Debit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	70	NR	NR
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Light Rail Stations	NR	NR	NR	NR	NR	NR	NR	NR
Demand Responsive Vehicles	NR	NR	NR	NR	NR	100	NR	NR
Commuter Rail Stations	NR	NR	NR	NR	NR	6	NR	NR
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	NR	NR
NR: No Response								

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		7	
Number of vehicles used in revenue service								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	369	70
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	18	NR	6	8	15	16	114	124
Commuter Rail	NR	NR	NR	NR	NR	NR	0	20
Ferry Boat	NR	NR	NR	NR	NR	NR	0	0
Have of plan to have an Automated Vehicle Location System?	No		No		No		1	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	No	0	1
Sign/Odometer	No	No	No	No	No	No	0	0
Dead-Reckoning	No	No	No	No	No	No	0	0
LORAN C	No	No	No	No	No	No	0	0
Other	No	No	No	No	No	No	0	0
Backup Technologies								
GPS	No	No	No	No	No	No	0	0
Sign/Odometer	No	No	No	No	No	No	0	0
Dead-Reckoning	No	No	No	No	No	No	0	0
LORAN C	No	No	No	No	No	No	0	0
Other	No	No	No	No	No	No	0	0
Number of Vehicles Equipped with AVL								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail	NR	NR	NR	NR	NR	NR	0	20
Ferry Boat	NR	NR	NR	NR	NR	NR	0	0
Motor Buses Operated as Vehicle Probes								
Number of Motor Buses equipped as probes on freeways?	NR		NR		NR			
Number of Motor Buses equipped as probes on arterials?	NR		NR		NR			
Have Organized Regional Incident Management Program?	No		No		No		3	
Have Automated Traveler Information System?	No		Yes		No		2	

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Services Automated Traveler Info. System Applies:								
Fixed Route	No		Yes		No		2	
Heavy Rail	No		No		No		0	
Light Rail	No		No		No		0	
Demand Responsive	No		Yes		No		2	
Commuter Rail	No		No		No		1	
Ferry	No		No		No		0	
Locations where traveler information is displayed to public								
Number of bus stops on fixed transit routes	NR	NR	NR	NR	NR	NR	0	15
Bus stops on fixed transit routes that display traveler info to the public	NR	NR	NR	NR	NR	NR	0	15
Number of rail stations	NR	NR	NR	NR	NR	NR	0	6
Number of rail stations that display traveler information	NR	NR	NR	NR	NR	NR	0	6
Number of other locations that display traveler information to public	NR	NR	NR	NR	NR	NR	0	10
Number of vehicles the traveler information system has available								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail	NR	NR	NR	NR	NR	NR	0	20
Ferry Boat	NR	NR	NR	NR	NR	NR	0	0
Deployment of Communications Technology								
Attributes of Radio System:								
Digital?	No		Yes		No		3	
Analog?	Yes		No		No		3	
Trunked?	Yes		Yes		No		5	
Regular?	No		No		No		1	
Services that use a Digital or Trunked Radio System								
Digital Only								
Fixed Route Bus	No	No	No	No	No	No	0	1
Heavy or Rapid Rail	No	No	No	No	No	No	0	0
Light Rail	No	No	No	No	No	No	0	0
Demand Responsive	No	No	No	No	No	No	0	1
Commuter Rail	No	No	No	No	No	No	0	1
Ferry Boat	No	No	No	No	No	No	0	0
Trunked Only								
Fixed Route Bus	No	No	No	No	No	No	0	0
Heavy or Rapid Rail	No	No	No	No	No	No	0	0

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Light Rail	No	No	No	No	No	No	0	0
Demand Responsive	No	No	No	No	No	No	0	0
Commuter Rail	No	No	No	No	No	No	0	0
Ferry Boat	No	No	No	No	No	No	0	0
Have of plan to have Automatic Passenger Counters (APCs)?	No		No		No			
Methods used to count passengers								
Treadle Mats	No		No		No		0	
Infrared Beams	No		No		No		0	
Primary and Secondary Location Technologies Used								
Primary Technologies								
GPS	No	No	No	No	No	No	0	1
Differential GPS	No	No	No	No	No	No	0	0
Signpost/Odometer	No	No	No	No	No	No	0	0
Dead_Reckoning	No	No	No	No	No	No	0	0
LORAN C	No	No	No	No	No	No	0	0
Other	No	No	No	No	No	No	0	0
Backup Technologies								
GPS	No	No	No	No	No	No	0	0
Differential GPS	No	No	No	No	No	No	0	0
Signpost/Odometer	No	No	No	No	No	No	0	0
Dead_Reckoning	No	No	No	No	No	No	0	0
LORAN C	No	No	No	No	No	No	0	0
Other	No	No	No	No	No	No	0	0
Number of Vehicles with APCs								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail	NR	NR	NR	NR	NR	NR	0	20
Ferry Boat	NR	NR	NR	NR	NR	NR	0	0
Remote Real-Time Monitoring and Computer Assisted Dispatching								
Remote Real-Time Monitoring								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail	NR	NR	NR	NR	NR	NR	0	20

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Ferry Boat	NR	NR	NR	NR	NR	NR	0	0
Automated Dispatching or Control Software								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	287	70
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	18	18	NR	NR	NR	NR	18	118
Commuter Rail	NR	NR	NR	NR	NR	NR	0	20
Ferry Boat	NR	NR	NR	NR	NR	NR	0	0
Coordinate or plan to coordinate travel request and vehicle								
dispatching for multiple agencies?	No		No		No		0	
Is there or will there be a Transportation Management Center								
(TMC) in the region that controls transit and highway modes?	NR		NR		No		0	
Modes that TMC currently controls:								
Highways	No	No	No	No	No	No	0	0
Fixed Route Bus	No	No	No	No	No	No	0	0
Heavy or Rapid Rail	No	No	No	No	No	No	0	0
Light Rail	No	No	No	No	No	No	0	0
Demand Responsive	No	No	No	No	No	No	0	0
Commuter Rail	No	No	No	No	No	No	0	0
Ferry Boat	No	No	No	No	No	No	0	0
Other	No	No	No	No	No	No	0	0
Priority at Traffic Signals and Ramp Meter Priority								
Priority at Traffic Signals								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	70
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	NR	NR	NR	NR	NR	NR	0	100
Ramp Meter Priority								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	NR	NR	NR	NR	NR	NR	0	0
Number of Vehicles Equipped with Navigation Aids								
Fixed Route Bus	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail	NR	NR	NR	NR	NR	NR	0	0
Light Rail	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive	NR	NR	NR	NR	NR	NR	25	100
Commuter Rail	NR	NR	NR	NR	NR	NR	0	20

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Ferry Boat	NR	NR	NR	NR	NR	NR	0	0
ITS Standards Used Related to Transit Management								
TCIP On Boad Objects (TCIP-OB)	No		No		No		0	
TCIP Traffic Management Objects (TCIP-TM)	No		No		No		0	
TCIP Common Public Transportation Objects (TCIP-CPT)	No		No		No		0	
TCIP Passenger Information Objects (TCIP-PI)	No		No		No		0	
TCIP Incident Management Objects (TCIP-IM)	No		No		No		0	
TCIP Fare Collection Objects (TCIP-FC)	No		No		No		1	
TCIP Spatial Representation Objects (TCIP-SP)	No		No		No		0	
TCIP Control Center Objects (TCIP-CC)	No		No		No		0	
TCIP Scheduling/Runcutting Objects (TCIP-SCH)	No		No		No		0	
Send data communication between micro computer and heavy duty								
vehicle applications (SAE J1708)	No		No		No		1	
Would agency be willing to participate in testing of ITS Standards?	No		No		No		2	
Have agreements in place with other agencies to use similar hardware								
and software to aid maintenance and interoperability?	No		No		No		0	
Electronic Fare Payment								
Have full operational Electronic Fare Payment System?	No		No		No		1	
Methods of Fare Payment								
Stored value card with fare deducted for each trip								
Magnetic Stripe	No		No		No		0	
Smart Card	No		No		No		0	
Debit Card	No		No		No		1	
Billed by the month for trips taken								
Magnetic Stripe	No		No		No		0	
Smart Card	No		No		No		0	
Credit Card	No		No		No		1	
Monthly Pass								
Magnetic Stripe	No		No		No		1	
Smart Card	No		No		No		1	
Vehicles/Stations Equipped with Automated Payment Mechanism								
Magnetic Stripe Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	0	0
Light Rail Stations	NR	NR	NR	NR	NR	NR	0	0

Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

	Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit		**Totals**	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	0	6
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	0	0
Smart Card Readers								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	0	0
Light Rail Stations	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	0	6
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	0	0
Credit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	0	0
Light Rail Stations	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	0	6
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	0	0
Debit Card								
Fixed Route Bus Vehicles	NR	NR	NR	NR	NR	NR	0	70
Heavy or Rapid Rail Stations	NR	NR	NR	NR	NR	NR	0	0
Light Rail Stations	NR	NR	NR	NR	NR	NR	0	0
Demand Responsive Vehicles	NR	NR	NR	NR	NR	NR	0	100
Commuter Rail Stations	NR	NR	NR	NR	NR	NR	0	6
Ferry Boat Landings	NR	NR	NR	NR	NR	NR	0	0
NR: No Response								

Appendix J
Transit Management Integration

Transit Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	ATE Management and Service		Denton City Manager	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	None listed		None listed	
Toll operators from whom you accept electronic payment of transit				
fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives				
incident severity, location, and type				
Receive Information	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed

Transit Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Fort Worth Transportation Authority (The T)		Grand Prairie City	
	1999	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes	
Transit operators in the region that use the same electronic payment system	Dallas Area Rapid Transit		None listed	
Toll operators from whom you accept electronic payment of transit				
fare through the use of ETC media	None listed		None listed	
Receiving real-time information via electronic means from others				
Freeway Management agencies from which your agency receives				
freeway travel times, speeds, and conditions				
Receive Information	Texas Department of Transportation Fort Worth District	Texas Department of Transportation Fort Worth District	None listed	None listed
Share Infrastructure	None listed	Texas Department of Transportation Fort Worth District	None listed	None listed
Arterial Management agencies from which your agency receives				
arterial travel times, speeds, and conditions				
Receive Information	Texas Department of Transportation Fort Worth District	Texas Department of Transportation Fort Worth District	None listed	None listed
Share Infrastructure	None listed	Texas Department of Transportation Fort Worth District	None listed	None listed
Incident Management agencies from which your agency receives				
incident severity, location, and type				
Receive Information	Texas Department of Transportation Fort Worth District	Texas Department of Transportation Fort Worth District	None listed	None listed
Share Infrastructure	None listed	Texas Department of Transportation Fort Worth District	None listed	None listed

Transit Management Integration
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes	
Transit operators in the region that use the same electronic payment system	None listed		None listed		None listed	
Toll operators from whom you accept electronic payment of transit						
fare through the use of ETC media	None listed		None listed		None listed	
Receiving real-time information via electronic means from others						
Freeway Management agencies from which your agency receives						
freeway travel times, speeds, and conditions						
Receive Information	None listed	None listed	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed	None listed	None listed
Arterial Management agencies from which your agency receives						
arterial travel times, speeds, and conditions						
Receive Information	None listed	None listed	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed	None listed	None listed
Incident Management agencies from which your agency receives						
incident severity, location, and type						
Receive Information	None listed	None listed	None listed	None listed	None listed	None listed
Share Infrastructure	None listed	None listed	None listed	None listed	None listed	None listed

Appendix K
Transit Management Information Collection and Dissemination

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes	
Methods used to disseminate transit information to the public						
Technologies your agency uses to disseminate:						
Transit routes, schedules and fares	NR	NR	NR	NR	NR	Facsimile, Audible Enunciators, Monitors/VMS (not in vehicle), Variable Message Signs (in vehicle), Cell phone/data, Cell phone/voice, In-vehicle navigation systems, E-mail or other direct PC communication, Kiosks, Internet Web Sites, Telephone System, Dedicated cable TV
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR	NR	Facsimile, Audible Enunciators, Monitors/VMS (not in vehicle), Variable Message Signs (in vehicle), Cell phone/data, Cell phone/voice, In-vehicle navigation systems, E-mail or other direct PC communication, Kiosks, Internet Web Sites, Telephone System, Dedicated cable TV
Technologies employed by other organization receiving your data						
Transit routes, schedules and fares	NR	NR	NR	NR	NR	Facsimile, Audible Enunciators, Monitors/VMS (not in vehicle), Variable Message Signs (in vehicle), Cell phone/data, Cell phone/voice, In-vehicle navigation systems, E-mail or other direct PC communication, Kiosks, Internet Web Sites, Telephone System, Dedicated cable TV

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR	NR	Facsimile, Audible Enunciators, Monitors/VMS (not in vehicle), Variable Message Signs (in vehicle), Cell phone/data, Cell phone/voice, In-vehicle navigation systems, E-mail or other direct PC communication, Kiosks, Internet Web Sites, Telephone System, Dedicated cable TV
Internet web site reporting transit routes, schedules and fare, etc.	NR		NR		NR	
Telephone system for reporting transit information to the public	NR		NR		Information phone line 817.215.8600	
Organizations your agency sends information for dissemination to the public	NR		NR		Star-Telegram:Newspaper□ Texas Department of Transportation□ Various Community Newsletters□ Radio and TV Stations□ Weekly Newspapers	
Data collected, archived, and/or transferred to another agency						
Collected by your agency	NR	NR	NR	NR	Scheduled roadway work zones for transit, Current roadway work zones for transit, Passenger information (e.g., surveys, O/D)	Transit operations coordination information, Emergency/evacuation routes and procedures, Intermodal (air, rail, water) conditions, Scheduled roadway work zones for transit, Current roadway work zones for transit, Route designations (snow emergency, etc), Transit vehicle signal priority, Vehicle monitoring status, Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count, Vehicle time and location

Agency Name	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Archived by your agency	NR	NR	NR	NR	Passenger information (e.g., surveys, O/D)	Transit operations coordination information, Emergency/evacuation routes and procedures, Intermodal (air, rail, water) conditions, Route designations (snow emergency, etc), Transit vehicle signal priority, Vehicle monitoring status, Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count, Vehicle time and location
Transferred to another agency by your agency	NR	NR	NR	NR	NR	Transit operations coordination information, Route designations (snow emergency, etc), Passenger count, Vehicle time and location
Importance of making information available to the public						
Ranked High	NR		NR		Transit operations coordination information, Emergency/evacuation routes and procedures, Intermodal (air, rail, water) conditions, Scheduled roadway work zones for transit, Current roadway work zones for transit, Route designations (snow emergency, etc), Road conditions, Vehicle time and location	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	ATE Management and Service		Denton City Manager		Fort Worth Transportation Authority (The T)	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**
Ranked Medium	NR		NR		Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count	
Ranked Low	NR		NR		Transit vehicle signal priority, Vehicle monitoring status	
Groups that make requests for the data	NR		NR		Consultants, MPOs, Media (I.e., TV stations, radio stations), Federal DOT personnel, Universities	
What is the data used for?	NR		NR		Planning, Traffic analysis, Do not know	

NR: No Response

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Grand Prairie City		Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Agency Returned Survey?	Yes		Yes		Yes		Yes	
Methods used to disseminate transit information to the public								
Technologies your agency uses to disseminate:								
Transit routes, schedules and fares	NR	NR	NR	NR	NR	NR	NR	NR
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR	NR	NR	NR	NR
Technologies employed by other organization receiving your data								
Transit routes, schedules and fares	NR	NR	NR	NR	NR	NR	NR	NR

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Grand Prairie City		Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Real-time transit schedule adherence or arrival and departure times	NR	NR	NR	NR	NR	NR	NR	NR
Internet web site reporting transit routes, schedules and fare, etc.	NR		NR		www.bus-stop.org		NR	
Telephone system for reporting transit information to the public	NR		NR		NR		NR	
Organizations your agency sends information for dissemination to the public	NR		NR		Service Program for Aging Needs (SPAN)		NR	
Data collected, archived, and/or transferred to another agency								
Collected by your agency	NR	NR	NR	NR	NR	NR	Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count, Vehicle time and location	NR

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Grand Prairie City		Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Archived by your agency	NR	NR	NR	NR	NR	NR	Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count, Vehicle time and location	NR
Transferred to another agency by your agency	NR	NR	NR	NR	NR	NR	Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count, Vehicle time and location	NR
Importance of making information available to the public								
Ranked High	NR		NR		NR		NR	

Data Collection and Dissemination: Transit Management
Agencies for Metropolitan Area: Dallas, Fort Worth

Agency Name	Grand Prairie City		Handitran Special Transit Division City of Arlington		Lewisville Dial-A-Ride		Mesquite City Transit	
	1999	**2005**	**1999**	**2005**	**1999**	**2005**	**1999**	**2005**
Ranked Medium	NR		NR		NR		NR	
Ranked Low	NR		NR		NR		Passenger information (e.g., surveys, O/D), Trip itinerary planning records, Passenger count, Vehicle time and location	
Groups that make requests for the data	NR		NR		NR		MPOs, Federal DOT personnel, State DOT personnel	
What is the data used for?	NR		NR		NR		Planning	

NR: No Response

Appendix L
Emergency Management

	Total Vehicles		Navigation Capabilities		AVL		CAD		CAD Equipped with Mobile Data Terminal		Vehicles Equipped with Preemption		Participate in Formal Incident Mgt Program	Send Incident Info to other agencies	
Agency Name	1999	2005	1999	2005	1999	2005	1999	2005	1999	2005	1999	2005			List of agencies receiving data
Arlington City Fire Department	26	NR	0	NR	0	NR	26	NR	NR	NR	26	NR	Yes	No	None listed
Arlington City Police Department	142	NR	NR	NR	NR	NR	142	NR	NR	NR	0	NR	Yes	No	None listed
Carrollton City Fire Department	14	15	0	15	0	15	14	15	0	15	14	15	Yes	No	None listed
Carrollton City Police Department	32	40	0	40	NR	40	32	40	NR	NR	1	40	Yes	No	None listed
Collin County Sheriffs Department	20	20	0	0	0	0	20	20	NR	NR	0	0	No	No	None listed
Dallas City Fire Department	221	235	0	0	221	235	221	235	NR	NR	0	0	Yes	No	None listed
Dallas City Police Department	677	700	0	700	0	700	677	700	677	700	0	0	Yes	No	None listed
Dallas County Fire Department	9	9	0	0	NR	NR	9	9	NR	NR	0	0	No	No	None listed
Dallas County Sheriffs Department	150	180	0	0	0	NR	150	180	NR	NR	0	0	No	No	None listed
Denton County Sheriffs Department	63	NR	0	NR	0	NR	63	NR	0	NR	0	NR	No	No	None listed
Ellis County Sheriffs Department	26	32	0	0	0	0	0	0	NR	NR	0	0	No	No	None listed
Fort Worth City Fire Department	72	74	NR	NR	NR	NR	72	74	NR	NR	72	74	Yes	Yes	Fort Worth City Police Department, Forth Worth Department of Public Safety
Fort Worth City Police Department	507	NR	0	NR	0	NR	0	NR	428	NR	0	NR	Yes	NR	None listed
Garland City Emergency Medical Services	NR	11	NR	0	NR	NR	NR	11	NR	NR	NR	11	Yes	No	None listed
Garland City Fire Department	16	18	NR	NR	NR	NR	16	18	NR	NR	16	18	Yes	No	None listed
Garland City Police Department	77	77	0	77	0	77	77	77	0	0	0	0	Yes	No	None listed
Grand Prairie City Police Department	63	75	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	No	No	None listed
Irving City Fire Department	27	28	0	8	NR	8	27	28	NR	NR	0	28	Yes	No	Medical Coordinator
Irving City Fire Department (Emergency Medical)	6	6	0	6	0	6	6	6	0	6	0	6	No	Yes	Medical Coordinator
Irving City Police Department	175	NR	0	NR	0	NR	175	NR	80	NR	0	NR	Yes	No	None listed
Johnson County Sheriffs Office	47	70	0	NR	NR	NR	47	70	NR	NR	0	NR	Yes	NR	None listed
Mesquite City Fire Department	14	17	0	17	0	17	15	17	NR	NR	0	17	No	Yes	None listed
Mesquite City Police Department	85	100	0	100	0	NR	85	100	NR	NR	0	100	No	No	None listed
Plano City Fire & EMS Department	18	24	0	0	0	24	18	24	18	24	18	24	Yes	No	None listed
Plano City Police Department	101	121	0	0	0	121	101	121	101	121	0	0	Yes	No	None listed
Richardson City Fire Department	14	13	0	11	0	11	14	13	NR	NR	14	13	Yes	Yes	Texas State Regional Advisory Committee, University of Texas Southwest Medical School, Texas Department of Health
Richardson City Police Department	47	NR	0	NR	47	NR	47	NR	NR	NR	0	NR	No	No	None listed
Rural/Metro Ambulance - City	9	NR	0	NR	0	NR	9	NR	NR	NR	0	NR	Yes	Yes	Arlington City Fire Department
Tarrant County Sheriffs Department	146	200	0	0	0	0	59	0	0	31	0	0	No	NR	Tarrant County Risk Management
Texas Department of Transportation Dallas District	20	24	0	0	17	24	0	0	NR	NR	0	0	Yes	Yes	None listed
Texas Department of Transportation Fort Worth District	6	NR	0	NR	0	NR	0	NR	NR	NR	0	NR	Yes	Yes	None listed

Appendix M
Electronic Toll Collection

Electronic Toll Collection
Agencies for Metropolitan Area: Dallas, Fort Worth

	Texas Turnpike Authority	
	1999	**2005**
Agency Returned Survey?	Yes	
Number of toll Collection Plazas operated	30	60
Number of toll collection plazas with dedicated ETC	30	60
Number of toll collection plazas with both manual and ETC	30	60
Number of toll collection lanes operated	102	238
Number of toll collection lanes with dedicated ETC	42	108
Number of toll collection lanes with both manual and ETC	60	130
Number of toll collection tags issued	250,000	350,000
Antennae Location Technologies		
In-Pavement?	No	
Focused Beam?	No	
Distributed Overhead?	Yes	
In-Vehicle Equipment Technologies		
Tag-based?	Yes	
Integrated circuit card-based?	No	
Are toll tags used by other toll operations in metro area?	Yes	
List of toll operators that use tags	DFW Airport, CDA	
Are toll tags used by operators of public transit to pay transit fares		
in metro area?	No	
List of transit operators that use tags	None	
_____		
NR: No Response		