

2002 Transportation Management Center (TMC) Survey

Closed Circuit Television Systems

1. Closed Circuit Television System Name:

- Number of CCTV cameras deployed
- Number of CCTV cameras on freeways
- Number of CCTV cameras on non-freeways
- Number of CCTV cameras associated with tunnels
- Number of CCTV cameras associated with bridges

2. Is a map available with statewide CCTV deployment information?

- Yes
 - Please provide a reference where it can be obtained
- No

3. Coverage (if appropriate -- many CCTV will be at spot locations)

- Miles of freeway covered
- Location of coverage (route and mile point start and finish)

- Miles of non-freeway covered
- Location of coverage (route and mile point start and finish)

4. How are CCTV systems used?

- Detect/verify incidents
- Roadway conditions monitoring
- Weather conditions monitoring
- Dynamic message sign message verification
- Event management
- Security
- Other

5. Where are CCTV cameras located?

- Rest areas
- Major interchanges
- High accident areas
- Ports of entry
- Monitor equipment
- Other

6. What other systems or agencies receive input from CCTV?

- Data archiving
- Public safety
 - State police
 - Local agencies
- Traffic management
- Incident management
- Traveler information / Information service providers
- Other states
- Other

Dynamic Message Sign Systems

7. Dynamic Message Sign System Name:

- Number of permanent dynamic message signs
- Number of mobile portable dynamic message signs
- Number of permanent dynamic message signs
- Number of permanent dynamic message signs

8. Is a map available with statewide DMS deployment information?

- Yes.
 - Please provide a reference where it can be:
- No

9. What type of information is displayed?

- Congestion
- Diversion
- Accident sites
- Transit operations
- Maintenance and construction work site information
- Roadway status
- Special events
- Parking availability
- Speed warnings
- Weather alerts
- Other

10. What other systems or agencies does this system interface (share control)?

- Data archiving
- Public safety
 - State police
 - Local agencies
- Traffic management
- Incident management
- Traveler information / Information service providers
- Other states
- Other

Road Closure Systems

11. Roadway Closure System Name:

Location(s) (e.g., route and mile point or description):

12. What is the current system status?

Currently deployed

Status Planned,

Planned deployment date:

13. What is the road classification where this system is located?

Freeway or other limited access highway

Other multi-lane highway (non-limited access)

2-lane highway

14. What technologies are used for detection on sections of roadway to be closed off?

CCTV

Sensors

Other

15. How is access controlled?

Automatic road closure gates

Manual road closure gates

Dynamic message sign to alert travelers of closures

Other

16. What other systems or agencies does this system interface?

Data archiving

Public safety

State police

Local agencies

Traffic management Incident management

Traveler information / Information service providers

Other states

Other

Route Diversion Management Systems

17. Route Diversion Management System Name:

18. What is the current system status?

Currently deployed

Planned, Planned deployment date:

19. What sources of data are used for making real-time diversion decisions?

Traffic conditions

Hotel capacity

Parking availability

Bridge capacity

GIS data

Other

20. How are pre-planned routes for recurrent problems identified?

Static guide signs

Electronic route markers

Other

21. What technologies are used to communicate information concerning route diversion?

Dynamic message sign

Highway advisory radio

In-vehicle

Flashing lights

511

Other

22. What other systems or agencies does this system interface?

Data archiving

Public safety

State police

Local agencies

Traffic management

Incident management

Traveler information / Information service providers

Other states

Other

Traffic Surveillance System

23. Traffic Surveillance System Name:

24. How many miles are covered by this surveillance system?

Freeway or other limited access

Non-freeways

25. What is the coverage/location of the traffic surveillance system?

Freeways

Non-freeways

26. Is a map available with traffic surveillance deployment information?

Yes

Please provide a reference where it can be obtained

No

27. What type of information is collected about vehicles?

	Freeway or other limited access highway	Other multi-lane highway	2-lane highway
Traffic volume			
Vehicle speed			
Vehicle classification			
Travel time			
Incidents			
Other			

28. What technologies are used to collect information?

	Freeway or other limited access highway	Other multi-lane highway	2-lane highway
Loop detectors			
Acoustic detectors			
Radar detectors			
Video imaging detectors			
Cellular telephone monitoring			
Probe vehicles			
Police reporting of incidents and congestion			
Other			

29. How many miles of roadway in your state are included in weather or natural disaster evacuation planning and how much of it is instrumented?

	Total Miles	Total under CCTV Surveillance	Miles under traffic volume/speed detection
Freeway			
Non-freeway			

30. What other systems or functions does this system interface?

- Data archiving
- Public safety
 - State police
 - Local agencies
- Traffic management Incident management
- Traveler information / Information service providers
- Other states
- Other

Traffic Management Center

31. Transportation Management Center Name:

Location(s) (address): _____

32. What is the current system status?

- Currently deployed
- Planned,
 - Planned deployment date:

33. Which of the following best describes the functional capabilities of this transportation management center?

- Network or roadway surveillance and data collection
- Incident management (e.g., detection, verification and monitoring or incident status)
- Information dissemination (public, private and/or interagency)
- En-route driver information (e.g., dynamic message signs, highway advisory radio, and in-vehicle systems)
- Environmental monitoring (e.g., air quality, noise and weather)
- Special event traffic management
- Disaster management and traffic coordination
- Emergency management traffic control coordination
- Ramp management and control
- Lane management and control (e.g., HOV, reversible lanes)
- Corridor management/traffic signal coordination or control
- Network performance monitoring, evaluation and reporting
- Other

34. Which of the following best describes the type of facilities used for this transportation management center?

- Building
- Free-standing building dedicated to traffic management activities
- Building shared with other activities (e.g., transit management, public safety)
- Dedicated control room
- Activities conducted in a room containing workstations or PCs that manage traffic (e.g., traffic signal control equipment)
- None
- Other

35. When does this traffic management center operate?

- Year-round
- Seasonal (e.g., tourist, hunting)
- During emergencies
- Other

36. What systems does this center utilize to manage traffic?

- Closed Circuit Television Systems
- Dynamic Message Sign Systems
- Route Diversion Management Systems
- Rural Roadway Closure Systems
- Rural Traffic Surveillance Systems
- Other

37. What are the hours of operation of this transportation management center?

- 24 hours a day
- Peak hours only
- Other

38. Dedicated Staff to Control Room: (Number of Employees)

	Professional Engineer	Other Professional	Technical	Administrative	Other
Full time agency staff					
Part time agency staff					
Full time contractor					
Part time contractor					

39. Dedicated Staff to Other TMC Activities (Number of Employees)

	Professional Engineer	Other Professional	Technical	Administrative	Other
Full time agency staff					
Part time agency staff					
Full time contractor					
Part time contractor					

40. Does your agency have a multi-year strategy plan that focuses on the TMC?

No

Yes, please indicate the following components: (Check all that apply)

- System goals and objectives
- TMC architecture and standards
- Operational strategies, procedures, and plans
- System operational requirements and concepts
- System maintenance concept and plan
- Staffing and system support plan
- Performance monitoring, evaluation, and reporting process
- Performance measures and thresholds
- Staff development and training
- Multi-year implementation plan to extend or upgrade system components
 - System Management
 - System support
 - Communication network
 - TMC (e.g., control room)
 - Traffic control devices
 - Surveillance devices

41. Does your agency have any agreements in place to establish and/or systematically maintain the ability to share information with other systems or agencies?

No

Yes, indicate the following components of this agreement: (Check all that apply)

- Hardware standards and/or specifications (e.g., DMS, traffic controllers, CCTC, etc.)
- Software and/or specifications
- Database and data elements
- Communications protocol
- Configuration Management
- Maintenance policies
- Acceptance testing specifications and procedures
- Accuracy of data
- Type of data

42. Does your TMC have established operational policies and procedures?

Yes

Are they documented in the form of an operations manual?

Yes, please identify the items contained in this manual

No

No

Coordinated Freeway and Surface Street Operations

43. Have control plans been developed to coordinate traffic between ramp meters and adjoining traffic signals?

Yes,

Number of locations: _____

No

44. Have operational procedures and protocol been established for agency staff to modify control plans on actual roadway conditions?

Yes,

No

45. Have interfaces been developed to share information between ramp meters and adjoining traffic signals to coordinate operation in real-time?

Yes,

Number of locations: _____

No

46. Do you have special control algorithms to coordinate operation of traffic signals and ramp meters?

Yes,

No

47. Does capability exist for TMC to remotely change both ramp meter and adjoining traffic signal operation?

Yes,

Number of locations: _____

No

Maintenance Program, Concept, Plans and Procedures

48. Do you have a formal maintenance program?

Yes, what are the components? (Check all that apply)

- System maintenance concept and requirements
- Policies
- Established procedures
- Multi-year program plan
- Tracking system and software
- Training
- Other

No

49. For each of the following technologies, do you have requirements, procedures, protocol for preventative maintenance, routine maintenance, or emergency repair?

	Requirements	Procedures	Protocol for Preventive Maintenance	Routine Maintenance	Emergency Repair
DMS					
CCTV					
Ramp meter controllers					
Traffic signal controller					
Communication network					
Detectors					

50. Do you have a formal Configuration Management program?

Yes, what are the components? (Check all that apply)

- Configuration control board
- System or Configuration Management Program Plan
- Program or system specific policies and procedures
- Multi-year program plan
- Training
- Other

No

51. What Configuration Management tools do you use, and have they been developed or purchased?

	Developed	Purchased
Software		
Inventory Software		
Documentation		
Other		

52. For each of the following technologies do you have manufacturer specifications, formal procedures, or check lists?

	Manufacturer Specifications	Formal Procedures	Check Lists
DMS			
CCTV			
Ramp meter controllers			
Traffic signal controllers			
Communication network			
Detectors			
Other			

53. Does your region have a formal Configuration Management initiative or policies to implement Configuration Management concepts and techniques?

- Yes,
- No

Acceptance Testing:

55. Do you have an acceptance-testing plan for your TMC?

Yes, what are the components? (Check all that apply)

- Policies
- Procedures
- Specifications
- Testing material and resources
- Training
- Other

No

55. For each of the following technologies do you have manufacturer testing specifications, formal testing procedures, or test performance requirements?

	Manufacturer Testing Specifications	Formal Testing Procedures	Test Performance Requirements
DMS			
CCTV			
Ramp meter controllers			
Traffic signal controllers			
Communication network			
Detectors			
Other			

56. Please provide us with a contact person for this TMC (name, e-mail, telephone, etc.).
