Project Name: Responder System - Phase 3

OCIO Project #:

Department: Transportation

Revision Date: 9/15/10

Concept Statement

Description

Brief description of the proposed project:

Phase 3 of the Responder System Pilot Project would continue from where Phase 2 of the Pilot successfully completed reporting traffic incidents at the first possible point in time with sufficient data to launch other emergency responders into action. The Responder System is a communication tool for emergency responders (such as the California Department of Transportation (Caltrans or Department) Maintenance and Traffic Operations personnel) to collect, track and share incident information quickly and easily with Traffic Management Center (TMC) and other incident responders. Developed by the Western Transportation Institute (WTI) at Montana State University, the system can be characterized as a mobile data terminal. The proof-of-concept system includes a rugged Tablet PC, GPS, cellular/satellite modem and a digital camera.

Need Statement

High Level Functional Requirements:

• The system provides first responders the means to collect, track, and send incident information such as time, location, incident descriptions, photographs, sketches, maps, aerial photos, forms, and manuals.
• The system is used by Caltrans' staff, but it has the potential for use by EMS, CAL FIRE, CHP and other emergency response agencies.
• The system uses field-hardened equipment and is portable.
• The system is easy to use and requires minimum training. Much of the incident information such as time and location is automatically populated, incident location is pinpoint on the maps, weather conditions and forecast are easily downloaded by a click of a button, and incident reports can be sent to multiple email addresses.
• The system can transmit incident information to the TMC and other outside agencies.
• The system can receive weather information including weather forecast and alerts.
• The system has data communications capability statewide. The system is operable in both rural and urban areas.

What is Driving This Need?

• Inconsistent and sparse communication coverage.
• Long distances between locations where emergency personnel and resources are located.
• Primary travel corridors that consist of two-lane highways with few alternate routes.
• Diverse geography (mountains, canyons, etc.) where highways include sharp curves, inclines, and segments without shoulders.
• Multiple local and regional jurisdictions that must work together to provide incident response.

Risk to the Organization if This Work is Not Done:

The lack of a functional, user-friendly, at-scene incident information collection system will continue to diminish the capacity of Caltrans' response to highway incidents and the ability to access and manage resources at the incident scene. First responders will continue to rely on inadequate tools such as voice communications alone to exchange information and coordinate response activities. Most importantly, the inconsistent and sparse communication coverage in the rural areas will remain a tremendous challenge for responders to communicate with others.

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Benefit Statement

Intangible Benefits

Process Improvements (describe the nature of the process improvement):

1. The Responder System will improve Maintenance first responders' capabilities to respond to and recover from highway incidents in a timely and efficient manner, particularly in remote rural areas where communication is sparse.
2. Incident information sent by the Responder System can be incorporated into Traffic Management Center (TMC) operations and database.

Other Intangible Benefits:

1. Saving of time spent delayed due to accidents and other incidents for the traveling public.

Tangible Benefits

Revenue Generation (describe how revenue will be generated):

To Be Determined in the Feasibility Study

Cost Savings (describe how cost will be reduced):

To Be Determined in the Feasibility Study

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Cost Avoidance (describe the cost and how avoided):

1. Time saved from the prevention or reduction of travel delays due to road accidents and incidents.

Risk Avoidance (describe the risk and how avoided):

To Be Determined in the Feasibility Study

Improved Services:

1. Improved traveler safety with quicker response of emergency services and clearing of incidents.
2. A common communication system across emergency services.

Consistency

"No" Responses →		Rationale	Action Required
Enterprise Architecture	Yes	To Be Determined	Feasibility Study
Business Plan	Yes		
Strategic Plan	Yes		

Impact to Other Entities

Nature of Impact to Other Entities

Entity: CHP, CAL FIRE, Emergency Medical Services (EMS)

Describe the nature of the impact:

• Potential to be used by other emergency response providers such as CHP, CAL FIRE, Emergency Medical Services (EMS), so the same incident information can be shared among the agencies to facilitate and coordinate response activities.

Entity: Caltrans' Division of Maintenance

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Describe the nature of the impact:
• Maintenance will have improved services when responding to incidents. • The Responder System training will be included as part of the Maintenance Annual training program.

Entity:
Describe the nature of the impact:

Entity:
Describe the nature of the impact:

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Solution Alternatives

Alternative 1:
To Be Determined in the Feasibility Study

Technical Considerations for Alternative 1:		
ROM Cost:	to	**Note: high end of range must not exceed 200% of low end of range**

Alternative 2:

Technical Considerations for Alternative 2:		
ROM Cost:	to	**Note: high end of range must not exceed 200% of low end of range**

Alternative 3:

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Technical Considerations for Alternative 3:		
ROM Cost:	to	**Note: high end of range must not exceed 200% of low end of range**

Recommendation

Comparison:

Alternative 1	ROM Cost			Risk
	$0	-	$0	
Alternative 2	**ROM Cost**			**Risk**
	$0	-	$0	
Alternative 3	**ROM Cost**			**Risk**
	$0	-	$0	

Conclusions:

1	
2	
3	
4	

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Recommendation:

Project Approach *(if known)*

System Complexity:				System Business Hours: *(e.g., 24x7, 9am-5pm) :*	To Be Determined in the Feasibility Study	
Architecture	☐ Mainframe	☐ Client Server	☐ Web Based		Num. of New Databases:	
Technology	☐ New	☐ New to Staff	☐ In-House Experience		Interfaces:	
Implementation	☐ Central Site	☐ Phased Roll-out			Num. of Sites:	
M & O Support	☐ Contractor	☐ Data Center	☐ Project	☐ In House		
Procurement Approach:					Number of Procurements:	
Open Procurement?		Delegated Procurement?				
Scope of Contract	☐ Development	☐ Implementation	☐ M & O	☐ Other:		
Anticipated Length of Contract:		Years /	extensions for	years		