

CA - PMM

Project Name: Intelligent Roadway Information System (IRIS)

OCIO Project #: _____

Department: Department of Transportation (Caltrans)

Revision Date: 10/12/10

Concept Statement

Description

Brief description of the proposed project:

The Intelligent Roadway Information System (IRIS) is an open source system developed by the Minnesota Department of Transportation (MnDOT). IRIS was tested for compatibility with the Caltrans' systems during a demonstration project in District 10. The Division of Traffic Operations partnered with UC Davis to modify or customize the MnDOT to fit the needs of a rural district. The Division of Traffic Operations now wants to adopt IRIS for regular use in Districts 1, 2, 5, and 10.

Need Statement

High Level Capabilities Needed:

Districts need the capability of quickly warning motorists of speed and visibility conditions. The key is being able to detect these conditions quick enough to alert motorists to take precautionary actions. The proposed solution will provide system management operators with access and control to multiple field devices including changeable message signs, cameras, vehicle detectors, visibility and speed detection stations. The system will provide motorists with travel advisories, AMBER alerts, and travel times in time to take precautionary actions. A single software version will be maintained for the 4 districts.

What is Driving This Need?

The rural districts need a common solution for controlling traffic control devices as well as capturing, and displaying status of incidents, roadway, and traffic conditions.

Risk to the Organization if This Work is Not Done:

As the rural districts continue to evolve, they will likely continue to work with independent contractors to develop their own solutions to acquire data, monitor conditions, and report on system performance. This project will provide an opportunity to develop a common solution that could be maintained together for multiple rural districts, thereby achieving economies of scale.

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Benefit Statement

Intangible Benefits

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

1. A single Department system for the rural districts that provides common traffic management functions.
2. Rural districts can manage congestion, automatically advise motorists of speed and visibility conditions, respond to incidents in an integrated manner and monitor functions in the rural areas.
3. Rural districts can capture, display, and disseminate live traffic data for system performance monitoring, the Internet, and the Commercial Wholesale Web Portal.

Other Intangible Benefits:

To Be Determined in the Feasibility Study.

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):

To Be Determined in the Feasibility Study

Risk Avoidance (describe the risk and how avoided):

To Be Determined in the Feasibility Study

Improved Services:

To Be Determined in the Feasibility Study

Consistency

"No" Responses 		Rationale	Action Required
Enterprise Architecture	Yes		
Business Plan	Yes		
Strategic Plan	Yes		

Impact to Other Entities

Nature of Impact to Other Entities

Entity: CHP

Describe the nature of the impact:

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Quicker notification of motorists of roadway or visibility conditions.

Entity: TBD.

Describe the nature of the impact:

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:

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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:

Concept Approach (if known)

System Complexity:			System Business Hours: (e.g., 24x7, 9am-5pm) :		To Be Determined in the Feasibility Study.	
Architecture	<input checked="" type="checkbox"/> Mainframe	<input checked="" type="checkbox"/> Client Server	<input checked="" type="checkbox"/> Web Based	Num. of New Databases:		TBD
Technology	<input type="checkbox"/> New	<input checked="" type="checkbox"/> New to Staff	<input type="checkbox"/> In-House Experience	Interfaces:		Internal
Implementation	<input type="checkbox"/> Central Site	<input type="checkbox"/> Phased Roll-out			Num. of Sites:	
M & O Support	<input type="checkbox"/> Contractor	<input type="checkbox"/> Data Center	<input type="checkbox"/> Project	<input type="checkbox"/> Returned to Sponsor		
Procurement Approach: (consult with OSI Procurement Center)					Number of Procurements:	
Open Procurement?			Delegated Procurement?			
Scope of Contract	<input type="checkbox"/> Development	<input type="checkbox"/> Implementation	<input type="checkbox"/> M & O	<input type="checkbox"/> Other:		
Anticipated Length of Contract:	1 1/4		Years /	extensions for		years