

CA - PMM

Project Name: Hospital Available Beds in Emergencies and Disasters (HAvBED)
OCIO Project #: _____
Department: California Department of Public Health (CDPH)
Revision Date: 9/13/10

Concept Statement

Description

Brief description of the proposed project:

Funding Source: Hospital Preparedness Program Grant (100% Federally Funded with Center for Disease Control's (CDC) HPP grant)

Center: Emergency Preparedness office (EPO)

Start Date: 07/01/2011

End Date: 07/01/2012

Is BCP Needed: No

CDPH 2008-2010 Strategic Plan: Goal 2

CA IT Strategic Plan: 2(1), 3(2,4)

AIMS: 1(1,6), 2(5), 4(3)

Project Description: To develop a hospital bed tracking system for the California Department of Public Health (CDPH) Emergency Preparedness Office (EPO), and the Emergency Medical Services Authority (EMSA) to receive from counties and compile information on availability of acute care hospital beds and transmit this information to the federal government. To meet the federal Hospital Preparedness Program (HPP) grant requirements, states are required to develop and implement a real-time electronic hospital bed tracking/monitoring system to assist in a regional or statewide ability to care for a surge of patients in the event of a mass casualty incident (MCI). CDPH must develop or implement a Custom or Modified Off-the-Shelf (COTS / MOTS) system capable of reporting bed categories that are consistent with HAvBED requirements and definitions.

Need Statement

High Level Capabilities Needed:

During a statewide disaster or pandemic, California must have the ability within hours to identify the number of available general acute care hospital beds on a statewide basis. This data is critical during a surge or pandemic event where quick identification of available and re-allocatable resources is imperative to preserve the loss of life. The HAvBED system must also have the ability to report aggregate State level data to the U.S. Health and Human Services (HHS) within four hours, more often than twice daily during disasters. The frequency of data required from the hospitals is dependent on the incident. The time necessary for data entry must be minimized so that it does not interfere with the other work responsibilities of hospital staff during a mass casualty incident (MCI). All institutions would need to enter data at the same time on similar days in order to reduce variability due to daily and weekly fluctuations in bed capacity. The data must possess hospital identification information and categories as defined by CDPH and EMSA as well as those defined by the U.S. HHS.

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What is Driving This Need?

This project must meet federal HPP grant requirements to develop and implement a real-time electronic hospital bed tracking/monitoring system. This system will have the ability to assist in a regional or statewide care during a surge of patients in the event of a mass casualty incident.

IT Projects will meet the requirements for accessibility for disabled persons as stipulated in the IT Policy Letter (ITPL) 10-10; State Management Manual (SAM) Sections 4819.2 and 4833; and State Administrative Manual (SAM) Sections 20, 25, 30.

Risk to the Organization if This Work is Not Done:

California's inability to immediately respond to bed availability needs may result in the loss of lives during an emergency or pandemic. Additionally, the inability to meet the HPP grant requirement may result in the loss of federal grant dollars.

Benefit Statement

Intangible Benefits

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

This project provides a real-time access to available beds through the internet eliminating all the manual coordination associated with the current processes.

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Other Intangible Benefits:

There is no existing capability to immediately capture statewide HAvBED data. The HAvBED system will provide real-time bed availability on a statewide basis for CDPH and EMSA. Bed availability information will also be available to the federal government as needed for the same purpose: to protect and save lives. Additional benefits include:

- Having real-time data will potentially save lives due to the ability to immediately respond to bed availability needs, in the event of a pandemic or other emergency that requires immediate action by CDPH and EMSA.
- The cost savings applies to State general fund dollars not needed for this project as long as CDPH can continue to meet the HPP grant requirements. This is a significant benefit for California as the state faces a significant statewide general fund budget reduction.
- The HPP grant provides CDPH with federal grant dollars. If CDPH is unable to meet HPP grant requirements, it may lose its ability to apply for these much needed grant funds.

This project directly aligns to CDPH's strategic goals as well as the statewide Strategic Concepts and Strategies outlined in the CDPH IT Capital Plan as follows:

1. IT as Reliable As Electricity
 1. Make IT more reliable for state customers
 2. Make IT processes more efficient
 3. Meet higher standard of service
3. Self-Governance in the Digital Age
 2. Increase the availability and accessibility of government services and...
4. Information as an Asset
 2. Increase the amount of searchable material on state Web sites
 3. Eliminate institutional barriers to the sharing of data and information
 4. Establish collaborative and cooperative relationships with public and private sector organizations to invest strategically in data and information
 5. Ensure that public data and information assets are usable and can be accessed when and where they are needed
 6. Utilize the Internet as a warehouse to store public information
6. Facilitating Collaboration that Breeds Better Solutions
 3. Streamline access to government services and information assets

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Tangible Benefits

Revenue Generation (describe how revenue will be generated): N/A

Cost Savings (describe how cost will be reduced): N/A

Cost Avoidance (describe the cost and how avoided): N/A

Risk Avoidance (describe the risk and how avoided): The ability to identify where care can be provided to prevent morbidity and mortality.

Improved Services: N/A

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Consistency

"No" Responses 		Rationale	Action Required
Enterprise Architecture	Yes	Although the Enterprise Architecture Planning is still in progress, we anticipate that the proposed project will be consistent with the organization's Enterprise Architecture.	
Business Plan	Yes		
Strategic Plan	Yes		

Impact to Other Agencies

Nature of Impact to Other Agencies

Agency: EMSA
Describe the nature of the impact:
 Local and State Emergency Medical Services Authority will utilize this system. Staffing needs to be determined.

Agency: Local health departments
Describe the nature of the impact:
 Local Health departments as well as hospitals in California will be required to use this system. Information will need to be input real-time which will add staffing time for data input. Staffing needs to be determined.

Agency:
Describe the nature of the impact:
 N/A

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Agency:
<i>Describe the nature of the impact:</i>
N/A

Solution Alternatives

Alternative 1:
Alternative Description: Purchase a Commercial Off-the-Shelf (COTS) or Modified COTS web-based system with real-time tracking utilizing vendors for development.

Technical Considerations for Alternative 1:	
Hosting Location: OTech The assumption is that this system will be located at two separate sites to provide adequate redundancy of this critical 24/7/365 system.	
ROM Cost: \$545,000 to \$1,635,000	Note: high end of range must not exceed 200% of low end of range

Alternative 2:
Alternative Description: Purchase a Commercial Off-the-Shelf (COTS) or Modified COTS web-based system with real-time tracking utilizing state staff for development.

Technical Considerations for Alternative 2:	
Hosting Location: OTech The assumption is that this system will be located at two separate sites to provide adequate redundancy of this critical 24/7/365 system.	
ROM Cost: \$354,500 to \$1,063,500	Note: high end of range must not exceed 200% of low end of range

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Alternative 3:

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
	\$545,000 - \$1,635,000	
Alternative 2	ROM Cost	Risk
	\$354,500 - \$1,063,500	<i>Lack of resources</i>
Alternative 3	ROM Cost	Risk
	\$0 - \$0	

Conclusions:

1	A COTS may be available, but it might not be easily modified to meet ever-changing state/federal requirements.
2	A MOTS provides additional flexibility needed to meet changing requirements.
3	CDPH EPO does not have the resources to develop this project.
4	

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Recommendation:

We recommend alternative 1 for this project. This alternative supports CDPH 2008-2010 Strategic Plan Goals: 2 and CA IT Strategic Plan Concepts and Strategies: 1(1,2,3), 3(2), 4(2,3,4,5,6), 6(3) and AIMS: 1 (1,6) 2(5), 4(3).

Project Approach (if known)

System Complexity:		System Business Hours: (e.g., 24x7, 9am-5pm) :		24x7x365	
Architecture	<input type="checkbox"/> Mainframe	<input type="checkbox"/> Client Server	<input checked="" type="checkbox"/> Web Based	Num. of New Databases:	tbd
Technology	<input type="checkbox"/> New	<input type="checkbox"/> New to Staff	<input type="checkbox"/> In-House Experience	Interfaces:	
Implementation	<input checked="" type="checkbox"/> Central Site	<input type="checkbox"/> Phased Roll-out		Num. of Sites:	2
M & O Support	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Data Center	<input type="checkbox"/> Project	<input type="checkbox"/> In House	
Procurement Approach: RFP				Number of Procurements: 1	
Open Procurement? Yes		Delegated Procurement?			
Scope of Contract	<input checked="" type="checkbox"/> Development	<input checked="" type="checkbox"/> Implementation	<input checked="" type="checkbox"/> M & O	<input type="checkbox"/> Other:	
Anticipated Length of Contract:	2	Years /	extensions for	years	