

Schedule 13

Funding Request for the FY 2015-16 Budget Cycle

Department of Health Care Policy and Financing

PB Request Number R-18

Request Titles

R-18 DDDWeb Stabilization

Dept. Approval By:	Josh Block		<input type="checkbox"/>	Supplemental FY 2014-15
			<input checked="" type="checkbox"/>	Change Request FY 2015-16
			<input type="checkbox"/>	Base Reduction FY 2015-16
OSPB Approval By:			<input type="checkbox"/>	Budget Amendment FY 2015-16

Line Item Information	Fund	FY 2014-15		FY 2015-16		FY 2016-17
		Appropriation	Request	Base Request	FY 2015-16	Continuation
	Total	\$7,723,551	\$0	\$8,800,570	\$205,260	\$96,242
	FTE	-	-	-	-	-
Total of All Line Items	GF	\$3,002,505	\$0	\$3,567,649	\$102,629	\$48,121
	CF	\$732,305	\$0	\$737,647	\$0	\$0
	RF	\$0	\$0	\$0	\$0	\$0
	FF	\$3,988,741	\$0	\$4,495,274	\$102,631	\$48,121

Line Item Information	Fund	FY 2014-15		FY 2015-16		FY 2016-17
		Appropriation	Request	Base Request	FY 2015-16	Continuation
	Total	\$1,571,743	\$0	\$3,319,062	\$0	\$96,242
	CF	\$4,805	\$0	\$10,147	\$0	\$0
01. Executive Director's Office - Payments to OIT	FF	\$789,748	\$0	\$1,659,531	\$0	\$48,121
	GF	\$777,190	\$0	\$1,649,384	\$0	\$48,121

	Total	\$6,151,808	\$0	\$5,481,508	\$205,260	\$0
	CF	\$727,500	\$0	\$727,500	\$0	\$0
01. Executive Director's Office - General Professional Services and Special Projects	FF	\$3,198,993	\$0	\$2,835,743	\$102,631	\$0
	GF	\$2,225,315	\$0	\$1,918,265	\$102,629	\$0

Letternote Text Revision Required?	Yes	No	X	If Yes, describe the Letternote Text Revision:
Cash or Federal Fund Name and CORE Fund Number:				FF: Title XIX
Reappropriated Funds Source, by Department and Line Item Name:				N/A
Approval by OIT?	Yes	X	No	Not Required: _____
Schedule 13s from Affected Departments:	N/A			
Other Information:	N/A			



Cost and FTE

- FY 2015-16: \$205,260 total funds, \$102,629 General Fund, and \$102,631 federal funds.

Current Program

- DDDWeb, which is the Department's case management system for clients with intellectual and developmental disabilities, must be a secure and stable system in order to ensure the privacy of client health information stored in DDDWeb and the uninterrupted delivery of medical services that rely on an authorization process via DDDWeb

Problem or Opportunity

- DDDWeb is unacceptably insecure and unstable, putting the Department at risk of breaching health information and disrupting delivery of critical client medical services
- DDDWeb is insecure because it requires an ad hoc network connection between the Department and the Department of Human Services (DHS) that is vulnerable to cyber-attacks and relies on software slated to lose manufacturer support due to age within the next year, which will leave the software vulnerable to cyber-attacks
- DDDWeb is unstable because it relies on an outdated physical server architecture that uses old hardware vulnerable to malfunction or failure due to age

Consequences of Problem

- If the insecurity and instability of DDDWeb is not corrected, then DDDWeb will be at an unacceptably high risk of cyber-attack or system malfunction until it is replaced in November 2016 by the Department's new Medicaid Management Information System (MMIS)

Proposed Solution

- The Department proposes to transfer DDDWeb from the DHS network to the Department's network, thereby eliminating the ad hoc network connection between the two Departments; updating DDDWeb's software to more recent software versions that will not imminently lose manufacturer support due to age; and finally, transferring DDDWeb from physical servers to virtual servers, which are a more modern and stable system architecture
- The Department expects these changes to DDDWeb would greatly improve the system's security and stability, helping to ensure that no protected health information is breached from DDDWeb and that client services requiring DDDWeb are not disrupted
- There are ongoing DDDWeb maintenance costs associated with this proposal, but funding is not requested in this proposal for these costs because they will be accounted for in common policy adjustments by the Governor's Office of Information Technology (OIT)



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Department of Health Care
Policy & Financing

FY 2015-16 Funding Request | November 1, 2014

John W. Hickenlooper
Governor

Susan E. Birch
Executive Director

Department Priority: R-18
Request Detail: DDDWeb Stabilization

Summary of Incremental Funding Change for FY 2015-16	Total Funds	General Fund
DDDWeb Stabilization	\$205,260	\$102,629

Problem or Opportunity:

The Department’s case management system for clients with intellectual and developmental disabilities, known as DDDWeb, uses outdated hardware and software that increases DDDWeb’s risk of security breaches and system malfunction. This is a problem because sensitive health information is stored on DDDWeb that needs to remain secure and delivery of services to clients would be disrupted if the system malfunctions. Additionally, DDDWeb is installed on the Department of Human Services’ (DHS) servers instead of the Department’s own servers and thus requires an ad hoc network connection between DHS and the Department that is vulnerable to security breaches and requires DHS involvement for administrative tasks such as adding a new user account, slowing down the process. Because DHS staff currently maintain responsibility for the server, the departments must share resources, and therefore the Department cannot prioritize DDDWeb issues or control when and how issues are resolved. As long as these problems are not addressed, there will continue to be a risk of a breach of health information and risk of federal penalties associated with breaches, a risk of disruption in service delivery, and inefficient system administration.

DDDWeb is used to coordinate service delivery for clients with intellectual and developmental disabilities. Community Centered Boards (CCBs) are responsible for entry of client demographic information and service authorization requests into DDDWeb. The service authorizations are mostly system approved when within allowable criteria. Remaining service authorization requests that fall outside the automated criteria are reviewed by Department staff and manually approved or rejected as applicable. Providers may perform authorized services and can update client information in DDDWeb for new authorized services as needed.

DDDWeb is also used by CCBs to document applicant developmental delay and/or developmental disability determination information; to add eligible clients to the waiting list(s) for services requested but not yet available; and to submit critical incident reports when expedited Department review is required for medical reasons.

Although the Department’s Division for Intellectual and Development Disabilities (DIDD), previously known as the Division for Developmental Disabilities, was transferred from DHS to the Department in early 2014 by HB 13-1314, DDDWeb remained on DHS servers. At the time of the transition, it was thought that

moving and updating DDDWeb could be avoided since DDDWeb will be replaced by the Department's new Medicaid Management Information System (MMIS) in November 2016. However, since the transfer, it has become clear that the security risks presented by the outdated system components and ad hoc network connection between the Department and DHS are too great to continue operations of DDDWeb as-is until the November 2016 replacement.

Proposed Solution:

The Department requests an increase of \$205,260 total funds in FY 2015-16, including \$102,629 General Fund and \$102,631 federal funds in order to transfer DDDWeb from DHS's servers to the virtual server environment maintained by the Governor's Office of Information Technology (OIT), and to update the application's software to current versions. The Department requests \$96,242 in FY 2016-17, including \$48,121 in General Fund and \$48,121 federal funds for ongoing system maintenance costs. This work would be performed by OIT staff and require approximately six months to complete. Work would begin in July 2015 and be completed by January 2016. There are also annual maintenance costs shown in Table 3 of the attached appendix that would be accounted for in common policy adjustments in future years.

If the proposed solution is not implemented, DDDWeb would be at risk of system failure because hardware becomes prone to failure as it ages. Furthermore, the software that DDDWeb uses: the server operating system, SQL database software, and Business Objects analytics software, are all outdated versions of the software, and as such, are slated to lose support from the manufacturer within the next year. Without manufacturer support, the software would not be regularly patched to prevent security breaches, exposing DDDWeb's sensitive information and the DHS and Department's networks to security threats. System failure would significantly impact service delivery to clients with intellectual and developmental disabilities because medical information could not be submitted by providers and authorized services could not be verified in the system. Intensive manual workarounds would be required to continue service delivery during the downtime and the Department would incur unplanned costs in compensation to OIT and their vendors for repairing DDDWeb. Unscheduled downtime due to hardware failure could cause the system to be offline for weeks because new or used physical parts are often difficult to acquire; vendor inventory is low for antiquated parts and some parts may no longer be produced by the manufacturer.

Additionally, without funding to migrate DDDWeb, DHS would continue to be involved in administering the system, requiring continued use of DHS staff resources to perform administrative tasks in the system. This could result in delays in completion of these tasks due to the need to coordinate across departments and because the Department is not able to prioritize work on DDDWeb.

Anticipated Outcomes:

The proposed solution would increase the stability and security of DDDWeb by moving it onto virtual servers and updating its software. Physical servers such as the ones currently running DDDWeb are being phased out by OIT in favor of more secure and flexible virtual servers. A major benefit of virtual servers is that the length of downtime due to system failure is greatly reduced. The system can be functioning again within hours, instead of days or weeks as with physical servers. Updated software ensures ongoing manufacturer support. The manufacturer would provide updates to protect against security threats or fix defects discovered

in the software after its release. This is critical to protecting private health information contained in the system, and protecting against unplanned system failures and the resulting system downtime.

Additionally, the proposed solution would eliminate the need for DHS involvement in basic administrative tasks like managing user accounts. Currently, when DIDD requires a new user account for DDDWeb, a new DHS network account may also be required, which generates additional work for DHS to set up and maintain. The Department's proposed solution would eliminate the need for these additional accounts because DHS network access would no longer be required to access DDDWeb.

As an alternative to the proposed solution, the Department considered keeping DDDWeb in its current state on DHS's servers until it is replaced by the Department's new MMIS in November 2016. This alternative would require no additional funding unless the system fails, in which case the Department would incur unplanned costs to compensate OIT for making emergency repairs to the system. This alternative would also not address the administrative inefficiency of housing DDDWeb at DHS and the security risks of outdated hardware and software and the ad hoc network connection between the Department and DHS. A major system failure could result in multiple weeks of downtime, during which The Department and providers would be unable to verify what services have been authorized for clients or authorize new services using DDDWeb. This would leave providers unsure if the services they provide will be reimbursed by Medicaid and lead to billing and payment problems. This would also likely disrupt service to clients, many of whom have a critical need for services to be provided without interruption.

The proposed solution would help the Department achieve two goals of the Department's five-year strategy plan. First, the proposed solution would help achieve the goal to "improve health outcomes, client experience, and lower per capita costs" by ensuring that authorized services for clients with intellectual and development disabilities are kept up-to-date and are available when the client needs them. Second, the proposed solution would help achieve the goal to "enhance efficiency and effectiveness through process improvement" by eliminating unnecessary administrative processes with DHS to manage DDDWeb.

Assumptions and Calculations:

Funding for this request is based on estimates from OIT. In the attached appendix, see Table 1 for a summary of this request by line item and Table 2 for a break out of the cost components of this request. Table 3 shows the ongoing costs of the request for informational purposes only; these costs would be accounted for through OIT's annual common policy adjustments. For all components, the Department assumes a federal match rate of 50%.

The 'OIT Staff Resources' components, shown in table 1, rows A through F, are to pay for OIT staff time to move DDDWeb to the virtual environment and update its software components. The 'Space on Virtual Block' component, shown in table 1, row G, is for the hard drive space required to store DDDWeb in the virtual environment. The 'Operating System Update' component, shown in Table 1, row H, is the licensing cost of updated Windows Server operation system software for DDDWeb. The 'SQL Update' component, shown in table 1, row I, is the licensing cost of up-to-date SQL server software required for DDDWeb. Finally, the 'Business Objects Update' component, shown in Table 1, row J, is for both the licensing cost of

up-to-date Business Objects software as well as one-time configuration costs performed by the vendor required to properly integrate the updated software with DDDWeb.

R-18 DDDWeb Stabilization
Appendix A: Calculations and Assumptions

Table 1 - Summary by Line Item				
Line Item	Total Funds	General Fund	Federal Funds	Source
(1) Executive Director's Office; (A) General Administration, General Professional Services	\$205,260	\$102,629	\$102,631	See Table 2, Row L
Total	\$205,260	\$102,629	\$102,631	

R-18 DDDWeb Stabilization
Appendix A: Calculations and Assumptions

Table 2 - Components of Proposal (One-time costs)					
Row	Cost component	Total Funds	General Fund	Federal Funds	Federal Match Rate
	<u>OIT Staff Resources</u>				
A	Network	\$2,215	\$1,107	\$1,108	50%
B	Developer	\$22,200	\$11,100	\$11,100	50%
C	Security Analyst	\$2,230	\$1,115	\$1,115	50%
D	Server Administrator	\$5,574	\$2,787	\$2,787	50%
E	Tester	\$8,361	\$4,180	\$4,181	50%
F	Access Control	\$5,800	\$2,900	\$2,900	50%
G	Database Administrator	\$10,880	\$5,440	\$5,440	50%
	<u>Hardware and Software</u>				
H	Space on Virtual Block	\$36,000	\$18,000	\$18,000	50%
I	Operating System Update	\$31,000	\$15,500	\$15,500	50%
J	SQL Update	\$36,000	\$18,000	\$18,000	50%
K	Business Objects Upgrade	\$45,000	\$22,500	\$22,500	50%
L	Total	\$205,260	\$102,629	\$102,631	50%

R-18 DDDWeb Stabilization
Appendix A: Calculations and Assumptions

Table 3 - Ongoing Annual Costs (To be accounted for in Common Policy)					
Row	Cost component	Total Funds	General Fund	Federal Funds	Federal Match Rate
	<u>OIT Staff Resources</u>				
A	Database Administrator	\$10,880	\$5,440	\$5,440	50%
	<u>Hardware and Software</u>				
B	Space on Virtual Block	\$36,000	\$18,000	\$18,000	50%
C	Business Objects	\$49,362	\$24,681	\$24,681	50%
D	Total	\$96,242	\$48,121	\$48,121	50%