

Electronic Vital Record Registration System**FY2009 Request: \$3,724,500****Reference No: 42853****AP/AL:** Appropriation**Project Type:** Information Systems**Category:** Health/Human Services**Location:** Statewide**Contact:** Arnold Liebelt**House District:** Statewide (HD 1-40)**Contact Phone:** (907)465-1870**Estimated Project Dates:** 05/01/2008 - 06/30/2013**Brief Summary and Statement of Need:**

The information system currently supporting registration of births, deaths, marriages and divorces in Alaska is more than 20 years old and is based on computer technologies no longer supported by modern operating systems. This request will fund a new electronic information system which will: 1) receive and store records of births and deaths in Alaska, 2) create vital records certificates which meet all applicable government standards, 3) allow web-based data entry by authorized individuals to speed the reporting of vital events and issuance of certificates, and 4) bring the State of Alaska into compliance with the federal Intelligence Reform and Terrorism Prevention Act of 2004.

Funding:	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	Total
Gen Fund	\$3,724,500						\$3,724,500
Total:	\$3,724,500	\$0	\$0	\$0	\$0	\$0	\$3,724,500

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input checked="" type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	320,000	0
One-Time Startup:	0	
Totals:	320,000	0

Additional Information / Prior Funding History:

CH159/SLA00/P14/L27 \$346.8 AHFC Dividends

CH139/SLA98/P51/L16 \$120.0 General Fund and \$200.0 Program Receipts

These funds were appropriated for Vital Statistics Imaging and System Replacement. The imaging project (currently in process) to create electronic images of approximately 1 million existing vital records certificates, is expected to exhaust the remaining funds in these appropriations.

Project Description/Justification:

Electronic Vital Records Registration System

BACKGROUND

A contemporary electronic vital records system is needed to improve service to Alaskans and better protect the security of their confidential information. Maintaining official records of births, deaths, marriages and divorces is an essential state government function. AS 18.50, the Vital Statistics Act, sets out the responsibility of the Bureau of Vital Statistics and the State Registrar of Vital Statistics to collect, maintain and protect Alaska's vital records. 7 AAC 05.030 assigns responsibility for procuring the best possible system for vital records to the State Registrar.

The information system currently supporting registration of births, deaths, marriages and divorces in Alaska is more than 20 years old and is based on computer technologies no longer supported by modern operating systems.

Because of the outdated technology, it is increasingly difficult for hospitals and other providers to run the available software which automates part of the process for registering births. As the Bureau of Vital Statistics' (BVS) system becomes further distanced from current technologies, providers will have to manually prepare birth certificates on paper forms and mail them to the Bureau for processing. This will create significant delays in registering births in Alaska. Since birth certificates are now the primary document to establish legal identity and are required to prove eligibility for many programs such as public assistance, Social Security, health insurance benefits, Medicaid, or the Permanent Fund dividend, a return to lengthy delays in registering births will financially harm Alaskans. In the past when birth certificates were manually registered, it took on average 72 days to register a birth in Alaska; with the current semi-automated process, the average has been reduced to 20 days. An automated web-based system could reduce the time frame to a few days or less.

Death certificates in Alaska currently are prepared and recorded via paper documentation. It frequently takes over a month for BVS to receive the death record. In this era of heightened awareness of the need to improve emergency preparedness and government response to disease outbreaks and disasters, the Centers for Disease Control and Prevention strongly recommends that state agencies provide real-time, electronic reporting of deaths. During a disease outbreak, pandemic flu, natural disaster or ongoing terrorist attack, state and local policy-makers and public health officials will depend on the Bureau of Vital Statistics to provide timely mortality data to guide decisions on response. A key feature of the new information system would be an Electronic Death Registration (EDR) module. Once a death record is entered into the EDR, the Bureau would immediately know of the death, even if the death certificate was not ready for registration.

Additionally, the federal Intelligence Reform and Terrorism Prevention Act of 2004 will require the electronic registration of all births and deaths. If the Bureau fails to update its information system to meet these requirements, the new requirements eventually will prohibit federal agencies from accepting a birth certificate issued by Alaska for benefit purposes. This means Alaskans would not be able to use birth certificates when applying for passports, Social Security benefits, or any other federal program that requires the use of an Alaska birth certificate.

Experience in other states indicates that it will take up to two years to design, test and fully implement new birth and death modules and up to two additional years to complete the marriage and divorce modules. The estimated cost of implementing a new electronic information system for BVS is \$3,724,500. Due to the condition of the existing vital records system, beginning this system replacement project in FY09 is a high priority for the Division of Public Health and for the DHSS Information Technology Section.

Collecting and maintaining vital records is a state responsibility. Federal funding is rarely available. While Congress indicated an intent to provide financial assistance to states to meet the requirements in the Intelligence Reform and Terrorism Prevention Act of 2004 at the time the legislation was passed, no federal funding has been made available.

The need to update Alaska's vital records system was recognized more than a decade ago. Capital funds were appropriated in FY98 and FY00 for Vital Statistics Imaging and System Replacement. An earlier effort to begin the process of replacing the existing database system failed after several years of marginal progress due to acquisitions within the industry and subsequent non-performance by the successors to the original vendor. The imaging project (currently in process) to create electronic images of approximately 1,000,000 existing vital records certificates, link the certificates to individual database records, and load the documents into an Electronic Document Management System is expected to exhaust the remaining funds in these appropriations.

BENEFITS

The electronic registration system will allow the Bureau and its business partners to eliminate redundant activities, improve the quality and timeliness of all vital record functions, and reduce the potential misuse of vital records for identity theft and other illegal purposes. Those typically involved in creating death certificates, including funeral homes, hospitals, physicians, medical examiners, and state registrars, medical certifiers or the State Medical Examiner, will be able to work simultaneously on the same document, each working independently of the other(s). Electronic authentication for vital events, such as automatic verification of a decedent's Social Security Number through electronic matching with Social Security Administration files in real time, will prevent fraud. It will also provide for the paperless filing of birth and death

records, eliminate the need to physically track down physicians to obtain signatures, and facilitate on-line collaboration among multiple death registration system users.

This project will enable the Bureau of Vital Statistics to set up automated, secure data exchanges with hospitals, medical certifiers, funeral homes, the Medical Examiners office, Social Security Administration and the National Center for Health Statistics. Internet-based vital records registration will eliminate the need for sending paper copies of birth and death records to the Bureau, reducing delays caused by the mail system and speeding the registration process. It will enable faster birth and death registration, thereby reducing the turn-around time for families to obtain certified copies of birth and death certificates.

Replacing the Bureau's current information system is crucial for the well being of Alaskans. If the current system fails before it can be replaced, the time it takes to register births would increase significantly and copies of birth records will have to be issued manually. Alaskans will face significant delays in getting copies of vital records needed for their every day life: obtaining health insurance benefits for their newborn children, applying for a PFD check, obtaining Medicaid or social security benefits, getting a driver's license, and traveling. Also, if Alaska fails to meet the federal intelligence reform regulations, Alaskans would be unable to use their birth certificates to establish identity when applying for passports, traveling with children, or obtaining any federal benefit such as Social Security or Medicaid. Improving the timeliness of death registration will provide essential information to assist government agencies and policy makers in responding effectively to disease outbreaks, natural disasters, or terrorist attacks.

The new system will automate processes for gathering, verifying, entering, storing and analyzing data and issuing certificates which are now primarily manual. It will take less staff time to process vital records requests, because certified copies could be issued electronically instead of manually from vault copies. Each vital record that can be issued electronically instead of manually saves three to five minutes staff processing time per request. This project is not expected to result in reduced operating costs because as it becomes fully implemented some existing positions will need to be shifted from manual duties to providing user training and support for the electronic system. The Bureau also anticipates the need to continue to support the existing paper-based process for a time after implementation until all users are trained to use the new system, and to maintain the ability to resume the paper-based processes temporarily if needed for the purposes of redundancy and continuity of operations in the case of a disaster which prevents users from accessing the electronic system.

We do not anticipate that this project will generate a net increase in Information Technology support costs. Although additional functions such as web-based data entry and interface with the Electronic Document Management System (a related project currently in process) will require work that is not involved in the current system, a reliable system using current technology will require less day-to-day technical support than the current system. On the other hand, should the current system fail before it can be replaced the Bureau's operating costs will increase. Bureau staff would be required to do the data entry that hospital staff currently does for creating birth certificates. The Bureau would need to add two permanent data entry positions to assume this increased work load.

Currently Bureau of Vital Statistics staff is responsible for entering all death certificate data into the information system. This responsibility would be transferred to funeral directors, doctors, or other medical staff in a new information system. Transferring this responsibility to the private sector will greatly speed the process of death registration and eliminate the time consuming mailing of death certificates between funeral homes and doctors.

DETAILS OF THE PROJECT

This capital funding will purchase a new electronic information system (hardware, software, security/firewalls) which will: 1) receive and store records of births, deaths, marriages and divorces in Alaska and, 2) create vital records certificates which meet all applicable government standards. The system will allow web-based data entry by authorized individuals (medical/hospital and funeral home personnel) to speed the reporting of vital events and issuance of certificates and bring the State of Alaska into compliance with the federal Intelligence Reform and Terrorism Prevention Act of 2004.

Each state has its own legal requirements for vital records systems, its own administrative structure, and unique geographic considerations. Recent experience in developing an electronic birth registration (EBR) system in Montana, which has geographic characteristics similar to Alaska (large states with a few large population centers and vast rural areas with sparse population), is informative of the current cost of such systems. The software contract cost for the EBR was \$500,000; typically the cost for electronic death system (EDR) software is similar. Since the electronic marriage and

Electronic Vital Record Registration System**FY2009 Request: \$3,724,500****Reference No: 42853**

divorce systems are less complicated, the cost for these two components is less and is estimated to be \$306,100 each. The hardware costs were based on current server prices. Cost estimates of state personnel to manage the project and carry out internal technical work involved in implementation of a new system within the state's network architecture and computing environment are based on recent experience with similar system implementation projects in the Department of Health and Social Services. Procurement of a system based on proprietary software requires an on-going contract with the vendor for maintenance and support of the software, including routine software updates; based on DHSS experience with similar projects, the annual cost for support and maintenance for specialized systems such as this is approximately 20% of the original cost of the software. Support and maintenance costs through the first full year of post-warranty production of the complete system (four modules) will be included in the implementation contract.

Project Schedule

System replacement	Start	End	One-year Warranty Ends	Start Support and Maintenance Contract
Develop RFP	07/01/08	10/31/08		
RFP posted	11/01/08	11/30/08		
Contract awarded	01/15/09			
Implementation	02/01/09	01/31/11		
Module 1: electronic death records	02/01/09	01/31/10	1/31/2011	FY11
Module 2: electronic birth records	02/01/10	01/31/11	1/31/2012	FY12
Module 3: marriage	02/01/11	01/31/12	1/31/2013	FY13
Module 4: divorce	02/01/12	01/31/13	1/31/2014	FY14

FY09 Capital request detail

71000 887,800 Personal services: one project manager July 2008 - January 2012 and one IT project position January 2009 - January 2012

73000 2,530,600 Software development and implementation contract including support and maintenance

75000 306,100 Hardware, security/firewalls, back-up/continuity of operations

ALTERNATIVES CONSIDERED

The most viable option is to procure a vital records information system from an established vendor. There are no other reasonable alternatives available. The security required of vital records systems and the complex transactional processes that must be tracked accurately make vital records information systems difficult to develop. Nationally, fewer than ten vendors have successfully developed and implemented electronic vital record information systems. The few states that have tried to develop a vital records registration system in house have given up after years of effort. The most recent state to give up on in-house development did so after four years of failed effort trying to develop just the birth module. Another state recently chose an established vendor after unsuccessfully awarding a million dollar contract to an unproven vendor that could not develop the system.

Retaining the existing system is not a viable alternative. The Bureau's current information system uses software technology (Wang) that cannot be updated and runs on hardware that is no longer manufactured. Since Alaska has to replace its current vital records information system before it stops working, we do not want to repeat the mistakes other states have made. The most cost-effective option is to purchase a vital records information from an established vendor.

Department's Mission: *To promote and protect the health and well being of Alaskans.* This project supports the Department's mission by collecting public health information for use in overseeing public health.

The end result to which this project contributes is "Healthy people in healthy communities."