



State of Utah

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**Utah Department of Health  
Executive Director's Office**

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July 1, 2010

Jonathan Ball, Director  
Office of Legislative Fiscal Analyst  
State Capitol Complex  
House Building, Suite W310  
Salt Lake City, UT 84114

Reference: H.B. 2 Medicaid Management Information System  
Replacement Options Analysis

Dear Mr. Ball:

House Bill 2 of the 2010 Legislature included intent language for the Utah Department of Health to report its plans for the Medicaid Management Information System (MMIS) replacement including "the full array of options for which parts of the claims processing are performed by State vs. contracted workers."

In November 2007, the Department issued a competitive Request for Proposals (RFP) to hire an independent consultant to assist the Department with its planning effort to replace the 25 year old legacy MMIS. This contract was awarded to FOX Systems, a leading consulting group in Medicaid systems with decades of Medicaid experience who has been awarded more MMIS Replacement Planning contracts than any other consulting organization.

The Cost Benefit Analysis is a key deliverable from the FOX contract. The Executive Summary from the Cost Benefit Analysis is attached. The Department also has the full report available for review. FOX examined four possible options for replacing the legacy MMIS including a Fiscal Agent option where a contractor would maintain and operate the MMIS and support Medicaid business processes and operations. All options include the use of contract workers. A heavier reliance on contract workers appears to lower the risk but increase the cost. FOX attempted to balance cost and risk in its recommendations. The following chart shows FOX's analysis of the options:



<b>Option</b>	<b>Design, Development, and Implementation Cost</b>	<b>Estimated Total Costs Over 14 Years</b>
State Integrator	\$75 million	\$315 million
Contractor Integrator	\$91 million	\$331 million
Facility Management	\$85 million	\$414 million
Fiscal Agent	\$67 million	\$603 million

The Fiscal Agent option had the highest total estimated cost of \$678 million over 14 years. FOX recommended that Utah pursue the Contractor Integrator option with an estimated cost of \$331 million. FOX didn't recommend the least expensive option, the State Integrator option, because of its significantly higher risk.

FOX undertook a number of activities leading up to the development of the Cost Benefit Analysis document. The first major activity was a State Assessment of the "As-Is" status and maturity of the current Medicaid environment and identification of a 5-10 year vision of the "To-Be" Medicaid environment. A second major activity was a Gap Analysis which identified the differences between the "As-Is" and "To-Be" environments along with priorities for transforming the environment to match this future vision. A third major activity was an assessment of Utah's capacity and capabilities within the State IT and business infrastructure.

During the time FOX was examining the possible options, the Department was also considering the feasibility of a phased development. Developing in phases appeared to be a more viable approach as the economic conditions deteriorated and the possibility of a large appropriation became increasingly unlikely. The Department identified several components that are independent enough that they can be replaced or enhanced, work within the current system environment but not require significant rework when the core system is replaced. This analysis, along with the planning activities FOX facilitated, provided the platform to begin work on the fraud and abuse detection system, a data warehouse upgrade and the pharmacy point of sale and drug rebate systems. These components are currently in progress.

Please contact me with any additional information or clarification you may require.

Sincerely,



Michael Hales, Director  
 Division of Medicaid and Health Financing  
 Utah Department of Health

Enclosure

# 1. Executive Summary

## 1.1 Background

FOX Systems, Inc. (FOX) is under contract to the Utah Department of Health, Division of Health Care Financing (DHCF) for the Medicaid Assessment Planning Project (MAPP). In accordance with section 30.2440 of Utah Solicitation NO8027, FOX is submitting this report on the results of the Cost Benefit Analysis (CBA) for the four options to replace Utah's Medicaid Management Information System (MMIS). In addition, the report presents recommendations concerning the selection of the most cost-effective and beneficial option for the business needs of Utah.

## 1.2 Deliverable Document Overview

This document has been developed to provide Utah executives and staff with information regarding the various options the State has available in selecting a replacement for the existing legacy MMIS. The organization of the remainder of this document is described below.

**Section 2 – Cost Benefit Methodology:** This section defines the terminology of MMIS and the assumptions used as a basis for developing this report. It contains the following information:

- The identification of the project phases and documents that lead to the development of this Cost Benefit Analysis
- The terminology associated with the term Medicaid Management Information System (MMIS), Pharmacy Benefits Management (PBM), and the Data Warehouse/Decision Support System (DW/DSS)
- The assumptions used to determine the estimated values for the analysis
- The identification of the future enhancements that will be required within the next five years to retain a compliant and cost effective MMIS
- A description of the impact on staff for the Design, Development, and Implementation (DDI) phases
- A description of the impact of MMIS functional and technology changes

**Section 3 – Other States' Experience:** This section presents findings concerning the cost associated with MMIS implementations currently under way in other States. Although this section presents cost breakdowns from similar States, other criteria such as current contracts with Utah were used in estimating costs. This section provides the following cost breakdowns:

- DDI Costs – Presenting the cost of DDI for multiple States
- Operating Costs – Presenting contractors operating costs in several States

**Section 4 – Future MMIS Market Outlook:** This section presents the market outlook for MMIS replacement projects in the United States. FOX estimates that there are over 30 States that are currently in development or will be re-procuring within the next 24 months. Utah will potentially be competing with States such as California, Texas, and New York. These States will attract the most experienced and established contractors due to their large Medicaid base and the fact that they have outsourced their operations to fiscal agents. The fiscal agent model is a more lucrative model for contractors.

**Section 5 – Options Analysis:** This section presents a detailed description of the four options analyzed, the costs of those options, a pros and cons list of each option, an impact analysis, and the feasibility analysis of the options. The cost of the options are estimated using other States costs as presented in Section 5.3 Comparison of Costs as well as the history and experience of Utah in dealing with system support and enhancements of their existing systems.

**Section 6 – Recommendation:** This section presents FOX's recommendation for selection of the most appropriate option to meet the needs of DHCF and the justification of that recommendation based on the analysis presented in this document.

### ***1.3 Summary of Future MMIS Impacts***

Today, more than ever before, organizations in the health care industry are pressured from many sides to improve technology, reduce costs, extend service, and create a patient-centric environment for Program participants. Many of these initiatives put additional pressure on the Medicaid agency and are also a factor in determining the strategic direction for their MMIS. FOX expects several major mandated enhancements will be required over the next four to five years. These enhancements will be required regardless of the strategy (options) that Utah may pursue in replacing the MMIS. Section 2.4 - Future Enhancements identifies those enhancements.

### ***1.4 Current MMIS Environment***

Utah's existing MMIS Claims Adjudication System is an outdated legacy system. It is primarily a mainframe COBOL/VSAM/CICS application implemented over 25 years ago.

The State does not intend on replacing the Data Warehouse (DW) and would prefer not to replace the Medicaid Managed Care System (MMCS); however, a transferred MMIS may contain similar functionality to Utah's MMCS. It may be more cost-effective to retain the functionality in a transferred system, as opposed to pulling it out and developing new interfaces to MMCS. Both the DW and MMCS were developed utilizing modern technology and are

somewhat independent of the core claims payment system components; however, appropriate interfaces to the core MMIS must be maintained. There has been no final decision about partial replacement, full replacement, or not replacing the MMCS System.

## ***1.5 Summary of Options Evaluated***

In this document, the term Medicaid Management Information System (MMIS) was used to describe six closely coupled subsystems (Provider, Recipient, Claims, Reference, Management Administrative Reporting, and Surveillance Utilization Review) that process professional, institutional, dental, and pharmacy claims and provide reports. Section 2.1 Terminology provides a definition of the terminology used in this analysis.

DHCF has determined that three alternatives to the options evaluated should not be considered because of their excessive risk or cost. These are:

- **Do nothing and continue with the existing MMIS.** “Two and a half decades of changes to the MMIS have led to numerous patches and creative workaround fixes to support the Utah Medicaid Program and keep the system operational, if not to its optimal capacity. The latest business driven change is the Health Insurance Portability and Accountability Act (HIPAA), which required a complete revision of the data acceptance input conversion functionality of the MMIS. The future of HIPAA requires concurrent support for multiple versions of X-12, which would be extremely difficult under the current system design.”<sup>1</sup>
- **Re-engineer the current MMIS.** The current core MMIS is a 30-year old legacy system. To date, no State has successfully accomplished a re-engineering implementation. Years of patching, workarounds, and hard coding have produced a patchwork system that could not be successfully re-engineered. The cost would be excessive and the results would fail to meet the business needs of DHCF and the certification requirements of the Centers for Medicare & Medicaid Services (CMS).
- **Build a new MMIS from the ground up.** There is exceptional risk and prohibitive costs associated with the ambitious undertaking of a new system built for Utah. DHCF lacks the resources to manage and oversee such a project. Given the current availability of state-of-the-art MMIS certifiable systems, it is very unlikely that CMS would approve such an approach.

Utah has identified four major options for continued certified MMIS support for its Medicaid program:

**Option A (State Integrator):** Utah chooses a state-of-the-art, certifiable MMIS to transfer, modify, and enhance, using State staff augmented by contractor support. The risk and responsibility of successful completion of this project will be carried by Utah.

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<sup>1</sup> State of Utah, SOLICITATION NO. NO8027: Technical Assistance in Planning Activities for Replacement of MMIS System, Nov. 1, 2007, Section 10.1000 Background, P. 20

**Option B (Contractor Integrator):** Utah selects a contractor to transfer, modify, and enhance a state-of-the-art, certifiable MMIS under the management of the State. This option may include a one-year option for the contractor to maintain and operate the MMIS. The risk and responsibility for successful completion of this project is primarily carried by the Contractor.

**Option C (Facility Management (FM)):** Utah selects a Contractor to transfer, modify, and enhance a state-of-the-art, certifiable MMIS, and the Contractor continues to function as an FM Contractor to maintain and operate the MMIS.

**Option D (Fiscal Agent (FA)):** Utah selects a Fiscal Agent to transfer, modify, and enhance a state-of-the-art, certifiable MMIS and the Contractor continues to function as an FA to maintain and operate the MMIS and support designated Medicaid business processes.

A more detailed description of these options can be found in Section 5 Options Analysis.

## ***1.6 Results of Cost Benefit Analysis***

A comparison of the four alternatives was made using a cost model that quantifies the relative financial cost of each alternative. In this comparison, the current MMIS operational environment was the baseline against which the other options were compared. FOX believes that all four options are viable and capable of supporting Utah's management objectives. They vary in operating costs and responsibility for the risk of success.

Estimated total costs (DDI, systems, and business operations) to support Utah's Medicaid Program for the 14-year period (SFY2011 – SFY2024) are:

- Option A (State Integrator) – \$315 million
- Option B (Contractor Integrator) – \$331 million
- Option C (Facility Management) – \$414 million
- Option D (Fiscal Agent) – \$603 million

The initial DDI costs for the four options vary in range as follows:

- Option A (State Integrator) – \$74.7 million
- Option B (Contractor Integrator) – \$90.9 million
- Option C (Facility Management) – \$84.7 million
- Option D (Fiscal Agent) – \$66.7 million

In performing its analysis, FOX has included all costs related to system development and operations that the State will incur over the 14-year period. This 14-year span was chosen to account for costs arising through re-procurement processes under two of the options studied. While the DDI costs for Option D appear to be the most favorable, the savings do not hold up and are quickly overtaken by the increased operational costs when compared to all other scenarios.

While the DDI costs are high, they are a small portion of the overall system costs, ranging from only 11% to 27% of total costs. These percentages will likely be even lower under Options A and B, as Utah has a history of maintaining its systems for longer than the 14-year period of the cost comparison.

## ***1.7 Summary of Recommendations***

FOX recommends that Utah proceed with Option B – Select a Contractor Integrator to transfer, modify, and enhance a state-of-the-art, certifiable MMIS under the management of a Project Management Office (PMO). Option B is recommended because it is the least costly option (\$331 million) associated with an acceptable level of risk the State is willing to assume. While Option A is less costly (\$314.8 million), it has a considerably higher risk factor. With Option A, work is paid for on an hourly basis without regard to tasks accomplished, whereas with Option B payment is based on specific deliverables providing more control for Utah. Furthermore, Option B is identified as the most feasible Option based on Table 17 in Section 5.10 Feasibility Analysis, which takes into consideration schedule, resources, culture, and value.

Option D represents a fundamental departure from the core strengths of the Division. The success of Utah's self-administered program is based on a deeply experienced staff in program policy, operations, client and provider relations, and technical support. Furthermore, Option D is identified as the least feasible Option based on Table 17 in Section 5.10 Feasibility Analysis.

The potential staff reductions associated with Option D would impact the Division's Bureau of Medicaid Operations (BMO) the Department of Technology Service's Information Technology Unit (DTS/ITU) that supports the MMIS. The total MMIS costs that would be impacted by an FA option for FY2008 is \$11,020,530. The most recent bids in response to the operational component of the Montana 2008 MMIS RFP included a low bid from Affiliated Computer Services (ACS) averaging \$12,848,280 per year over 8 years.

The State of Colorado has a Medicaid program operating under a FA contract arrangement. It is the most nearly comparable program to Utah in Region 8. Comparison of the organizational structure and staffing levels for Colorado's Department of Healthcare Policy and Financing (DHCPF) to Utah's DHCF indicates that any potential saving associated with staff reductions in BMO (\$2,069,933) and DTS/ITU (\$2,096,640) would be partially off-set by staffing requirements associated with operational and technical over-site and interface required for an FA contract.

FOX also recommends that Utah consider employing the project governance and contract management best practices described in Section 2.5 Impact on Staff for Design, Development, and Implementation Phase of this report.

Table 11 in Section 5.6 Option B – Use Contracted Resources to Implement a Replacement MMIS shows the expenses by category and the Federal Financial Participation (FFP) level. Based on this table, the State share of DDI costs is \$11.3 million. This include \$7.6 million for the initial DDI, \$1.6 million for a year of maintenance and mentoring of the ITU staff by the DDI contractor, \$1.7 million for software/hardware and \$400,000 for State staff time. The State

share of the total cost of DDI, maintenance, and operations for the 14-year period (FY2011 – FY2024) is \$65.3 million.