# Legislative Fiscal Division Process and System Documentation and Analysis

# Report of Findings and RECOMMENDATIONS

# September 30, 2010

## Background:

The LFD Process and System Documentation and Analysis project was undertaken to document LFD’s major and minor business processes and the technologies and applications used to support these processes. In order to document LFD systems and processes and provide better support for LFD, the Legislative Branch asked for, and received, a Systems Analysis FTE from the 2009 Legislature. This FTE was filled and the incumbent has begun the analysis phase of this project. The result of the project will be a series of recommendations on new software products to use where existing ones are obsolete or not robust enough and lay out a schedule for replacement of these systems with resources and budget needed to accomplish the replacement.

## Objective:

This project prepares the groundwork for future modifications, enhancements or replacements of LFD systems. By documenting the current processes and systems environment, opportunities for improvement can be identified and prioritized. Additionally, gathering current documentation helps reduce risks and improve support capabilities through knowledge transfer to additional LFD and IT resources.

## Outcomes:

The project was designed to create three sets of documents.

1. Documentation of current business processes – 14 business processes were reviewed and are currently being documented.
2. Documentation of current systems – 12 technical systems were reviewed and are currently being documented.
3. Report of findings and recommendations – This document contains the current findings and recommendations from this project.

## Summary Recommendations:

Below is a summary of the projects recommended as part of the LFD Process and System Documentation and Analysis project.

The following projects should be launched in the next biennium.

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| --- | --- |
| **Project** | **Estimate** |
| Revise Processes and Applications for Major Publications (study) | $135,000 |
| MBARS Upgrade/Replacement (continued planning only) | $0 |
| Move Systems to Centralized IT Support |  \* $0 |
| **Total Current Biennium Estimated Funding** | **$135,000** |

The following potential projects should be considered in future biennium. Funding may be requested in the future to support these projects.

|  |  |
| --- | --- |
| **Project** | **Estimate** |
| Revise Processes and Applications for Major Publications (implementation) | TBD |
| MBARS Upgrade/Replacement (possible implementation) | TBD |
| Lotus Approach Replacement | $250,000 |
| Fiscal Note System Replacement | $300,000 |
| MS Access Database Replacement | $50,000 |
| Improve “Transparency” of Revenue and Expenditure Data (Study) | $0 |

\* Any costs will come from IT operations putting further pressure on LSD’s central IT budget.

## findings and Recommendations:

Findings are divided into the following categories:

* Revise Processes and Applications for Major Publications
* Declining or Obsolete Technologies
* Enterprise Application Solutions
* Improved Central IT Support
* Improve Ability to Publish and Access Information/Data on the Web

##### Revise Processes and Applications for Major Publications:

The highest priority process/technology improvement need for the Legislative Fiscal Division is the revision of processes and technical tools for developing major publications. Many of the current publications are created through static documents that are then manipulated manually with a tremendous amount of staff effort to create a final product.

1. Plan, design and replace the tools supporting major publications.

This project should be broken into two phases. Phase 1, a study to review and design a new publishing process and system architecture, should be conducted in the next biennium. Phase 2, the implementation of the new processes and architecture, should then follow in the subsequent biennium.

* 1. Phase 1: Review and design an updated publishing processes and architecture.

The current publication process for critical document in LFD relies on obsolete tools (e.g., PowerBuilder) and word processing tools that are not designed as sophisticated merging, linking, editing and publishing tools. The first step should be to study the entire set of publication requirements and needs and set a direction for publication process and technical tools. This study should be conducted with a contractor familiar with highly complex document creation and publishing processes and technologies. The end result of this study should be a vision for a future process and architecture, a plan to achieve that vision and an estimate of cost and resources to achieve that plan. This plan needs to address how the revised processes and tools tie into existing, and potential future, budget and financial system (e.g., MBARS/IBARS, SABHRS).

* 1. Phase 2: Implement a more robust publishing processes and architecture.

Using the output from Phase 1, process should be revised an technologies implemented to improve the publishing of major documents by the LFD. These may include tying to architectures that may be introduced in the Legislative Services Division to support legislative process and could include XML database and XML editing/publication technologies. These are just some of the technologies that could improve LFDs ability to prepare sophisticated and complex publications (e.g., Budget Analysis) from multiple simultaneous data sources (e.g., MBARS, SABHRS, internal analytical tools, external economic data sources).

Project Priority: High

Project Schedule:

The implementation phase of this project should be scheduled after the Branch identifies a new standard solution for publication processes and systems that support the legislature. This standard is currently being reviewed by the Session System Analysis project and follow-on initiatives. This will probably be determined between the 2011 and 2013 sessions so a base system would not be available to be leveraged until following the 2013 session at the earliest.

Project Cost:

Phase 1: $135,000 – Based on approximately 1,000 contractor hours at $120/hour plus $15,000 in expenses.

Phase 2: Cost to be determined by Phase 1.

Project Resources:

Phase 1 of this project would require 1 – 2 contractors with dedicated internal subject matter experts from LFD. This project would require outside consultants to help design, and in the future implement, a robust solution. The size of the Phase 2 team would vary depending on the final scope of the project.

##### Declining or Obsolete Technologies:

The Branch has identified several declining or obsolete technologies that need to be migrated to other applications or updated to newer versions.

1. MBARS Upgrade/Replacement Planning and Implementation

MBARS is a system used by both the Executive (OBPP and Agencies) and Legislative Branches. It is used before the legislative session to prepare the executive budget recommendations. During the session, the system is used to track budget decisions as the Legislature establishes appropriations policy. Upon completion of the session, the system is used to load the state’s accounting system with legislatively approved budget information. MBARS was developed for the state by a private contractor in 1997-1998. It was first used for the 1999 legislative session. MBARS currently performs the budget creation and modification process very well. Some of the underlying technology supporting the MBARS system is considered “declining technology”. The newer version of MBARS (IBARS) appears to be more flexible in budgeting techniques. The MBARS team (including representatives from SABHRS/MBARS, OBPP and LFD) has developed a basic plan for upgrading functionality and technical tools in future biennium. LFD will maintain active involvement with that planning process as it progresses.

Project Priority: High

Project Schedule:

Planning will continue throughout the next biennium with an implementation project to begin no earlier than the 2013 budgeting cycle.

Project Cost:

See MBARS plan for project cost estimates.

Project Resources:

LFD will need to be prepared to support any future planning and implementation efforts for MBARS.

1. Lotus Approach Replacement

The Division uses Lotus Approach for accessing and manipulating SABHRS data, for tracing HB2 amendments and for tracking financial aspects of fiscal notes. Lotus approach is a low-end database package that runs on the PC. Lotus Approach has been dropped from the list of supported Executive Branch software. However, the company (IBM) that sells and supports Lotus Approach has no plans to phase it out. The Division requires very little support for Lotus Approach. The Branch has discontinued new development in Lotus Approach but will continue to use and support the current systems that use this software. OLIT will consider converting these Lotus Approach applications to supported software sometime in the next 4 to 6 years.

Project Priority: Medium

Project Schedule:

The current systems could be converted in two or more smaller projects (SABHRS Data Access, HB2 Amendment Tracking). Each of these projects could take from 6 to 12 months

Project Cost:

Each sub-project: $50,000 - $150,000

Project Resources:

These projects could be accomplished by a team of mostly internal staff but will need to be supplemented by contractors.

1. MS Access Database Replacement

MS Access is primarily used to extract data from SABHRS Financial and HR systems and to filter this data as it is downloaded into tables used by other tools (e.g., Excel). LFD currently does not have any MS Access applications other than these query/filter tools. The use of MS Access should be carefully considered as data and applications are migrated toward newer architectures because this extra layer of application may be eliminated in some instances.

Project Priority: Low

Project Schedule:

As opportunities are agreed upon and time permits

Project Cost:

$0 - $50,000 - Largely dependent upon additional tools/software required to run/manage scheduled jobs.

Project Resources:

This project could be done with internal resources depending on priority and time availability.

##### Enterprise Application Solutions

1. Fiscal Note System Replacement

It was noted above that the Fiscal Note System is currently hosted on a declining or obsolete technology. Additionally, the data tracked and maintained in this system is also maintained in other places in the Legislative and Executive Branches. The statuses and current versions of Fiscal Notes are tracked in LAWS. LFD and OBPP both extract similar data from LAWS into their own tracking systems. Additionally, the dollar impact to the states revenue and expenditures is tracked by both LFD and OBPP in their own separate databases (Access for OBPP and Lotus Approach for LFD). Finally, some of the data captured in these systems are only available to the public by reading a PDF copy of the Fiscal Note on the LAWS web site. The Fiscal Note System is one area where the Legislative and Executive Branches could design a solution to meet all the enterprise needs. There are clearly opportunities to assist agency, governor budget office, LFD, Legislative and public needs with a new system. Options for an enterprise solution may include MBARS/IBARS or LAWS (or some entirely new system) as a repository for data input directly from agencies allowing all parties to monitor and generate reports using this data. This project should only be undertaken if the Executive branch sees this as an enterprise priority and chooses to join forces with LFD to create an enterprise solution. Without the moving forward as an enterprise there may not be enough benefits for LFD to undertake this project alone.

Project Priority: Low

Project Schedule:

Identify requirements and design a solution between the 2013 and 2015 sessions. Obtain funding and conduct an implementation project between the 2015 and 2017 sessions to be ready for managing Fiscal Note data in the 2017 session.

Project Cost:

Very rough estimate of $150,000 - $300,000

Project Resources:

Some in-house and some contracted resources. Subject matter experts would be required from both the Legislative and Executive branches to support this project.

##### Improved Centralized IT Support

1. Transfer system/application operations to centralized IT department

Several of the applications currently used by LFD have regularly scheduled operations and maintenance activities (e.g., daily downloads of data for SABHRS). Some of these applications could be operated and maintained by the centralized IT department. This would include more robust operational scheduling, monitoring and running of daily/weekly/monthly jobs.

Project Priority: Medium

Project Schedule:

As opportunities are agreed upon and time permits

Project Cost:

$0 - $50,000 - Largely dependent upon additional tools/software required to run/manage scheduled jobs.

Project Resources:

This will be done with internal resources dependent on priority and time availability.

##### Improve Ability to Publish and Access Information/Data on the Web:

1. Improve “transparency” of revenue and expenditure data.

There is a clear need to continue to search for tools and techniques to provide better access to revenue and expenditure data to the public. Several options have been tried with the current tool being Excel pivot tables. This is a great start but may not be accessible by the public in a form that is understandable and easy to use. A group of key stakeholders needs to identify requirements and develop solution options. Since this is being studied and debated by other groups (the legislature, outside interest groups, etc.) LFD should monitor, be active in the discussion, and be ready to respond to these requirements as they are established.

Project Priority: Low

Project Schedule:

Variable depending on the solutions being proposed

Project Cost:

Variable depending on the solutions being proposed

Project Resources:

Depending on the design option selected this could be created internally (if the scope is kept small) or it may require contracted resources (if a more robust data access tool needs to be build with specialized expertise). Defining and managing scope on this effort will be critical.