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WISCONSIN STATE LEGISLATURE ...
PUBLIC HEARING - COMMITTEE RECORDS

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Committee on ... Information Policy and Technology (JC-IPT)

COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... bills and resolutions (w/Record of Comm. Proceedings)
  (**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
  (**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

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State of Wisconsin

Department of Administration

Report to the Joint Legislative Audit Committee: A New Approach to Information Technology Management

WISCONSIN DEPARTMENT OF
ADMINISTRATION

Michael Morgan
Secretary

Oskar Anderson
Chief Information Officer

101 East Wilson Street
P.O. Box 7864
Madison, WI 53707-7864

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WISCONSIN DEPARTMENT OF
ADMINISTRATION

JIM DOYLE
GOVERNOR
MICHAEL L. MORGAN
SECRETARY
Office of the Secretary
Post Office Box 7864
Madison, WI 53707-7864
Voice (608) 266-1741
Fax (608) 267-3842

October 1, 2007

Senator Jim Sullivan, Co-chair
Representative Suzanne Jeskewitz, Co-chair
Joint Legislative Audit Committee
State Capitol
Madison, Wisconsin 53702

Dear Senator Sullivan and Representative Jeskewitz:

I am pleased to provide you with a report that presents a new, comprehensive operational plan to manage state government IT projects. We have developed a disciplined approach that puts in place best practices from the conception to the completion of state agency IT projects. Standardized procurement, planning, reporting and monitoring procedures have been developed over the past five months in collaboration with other agency IT directors that will govern projects that start after October 1, 2007.

The plan defines high profile projects and establishes roles and responsibilities for project teams. It also lays the groundwork for regular monitoring and anticipates Legislative oversight.

The Department of Administration will take steps to establish the IT Management Board as recommended by the Legislative Audit Bureau as soon as the legislative oversight committees are formed.

Since joining the Department of Administration in March, our Chief Information Officer, Oskar Anderson, has been working tirelessly with the Wisconsin IT Directors' Council to develop the IT management framework described in this report. He brings credibility, expertise and common sense to these highly complex technology projects. His approach is collaborative and works to efficiently utilize state resources and expertise.

I am confident that the new IT management plan we are presenting today will help ensure the success of future state IT projects.

Sincerely,

Michael L. Morgan, Secretary
Department of Administration

EXECUTIVE SUMMARY

The State of Wisconsin has developed a new approach to information technology (IT) management based on increased interagency collaboration, standardized project frameworks, regular reporting to the appropriate legislative groups, and a focus on effective communication among all entities involved in a project. The new approach, drafted in consultation with the state IT Directors' Council (ITDC), consists of four fundamental components:

- Improving IT planning;
- Establishing standards for IT project planning and management;
- Improving project monitoring; and
- Establishing collaborative organizational structures for IT management.

Improving IT Planning

- State agencies will use a standard template to submit IT plans.
- Agency plans will include a list of all IT projects and also identify "high-profile" projects, which are those costing $1 million-plus or are otherwise considered vital by the agency.
- The Department of Administration (DOA) will maintain a Web site with all agency plans and a list of all the high-profile projects.
- The ITDC will work together to produce the biennial, statewide IT strategic plan due in September 2008.

Establishing Standards for IT Project Planning and Management

- Project planning, reporting and monitoring must adhere to ITDC-adopted standards.
- Specific roles of the project manager, agency IT organization, business areas, DOA and vendors will be defined for all projects.
- Significant stakeholders will be identified in the communication plan.
- Required project documentation will be kept current and stored in a folder specific to the project at the agency in order to facilitate monitoring efforts.
- Agencies will follow standard procedures for determining whether available off-the-shelf software can provide solutions.
- If master-lease financing is used, established policies and procedures will be followed.
- A change control process, with oversight by a Change Control Board, is required to document all changes in project scope, cost and completion schedule.

Improving Project Monitoring

- All high-profile IT projects will be monitored through an independent validation and verification (IV&V) process. IV&V reviews will include assessment of financial status, adherence to standard project management principles, adoption of IT industry technical standards, and satisfaction of business goals.
- The IV&V process will be conducted by a combination of state staff and contractors.
- IV&V reports and recommendations will go to the management team of the project being reviewed, the ITDC Steering Team, the agency Secretary's Office, the DOA Secretary's Office, the IT Management Board (see below), the Joint Legislative Audit Committee, and any other committees designated by the Legislature.

Establishing Collaborative Organizational Structures for IT Management

- Enhanced collaboration and information sharing between agencies, DOA, the ITDC, the IT Management Board and legislative committees will improve the transparency of IT project planning and management. Timely recognition of problems then becomes much more likely.
- The IT Management Board is authorized to advise DOA in the management of the state's IT assets and to monitor progress on IT activities. The board's membership includes the co-chairs of the Joint Committee on Information Policy and Technology and the Governor or his designee.
- The State Chief Information Officer, an appointed position within DOA, has a key role in ensuring that this collaboration and information sharing takes place, and that project management standards are being consistently communicated and applied.

This report to the Joint Legislative Audit Committee also includes status updates on projects highlighted in recommendations from the Legislative Audit Bureau's April 2007 Review of Information Technology Projects.

INTRODUCTION

The State of Wisconsin has developed a new approach to information technology (IT) management based on increased interagency collaboration, standardized project frameworks, regular reporting to the appropriate legislative bodies, and a focus on effective communication among all entities involved in a project. The current environment for IT project management contains inconsistencies in how the efforts are initiated, governed, monitored and documented. The result has been an inconsistency in delivery and difficulty in assessing whether a project is proceeding on a satisfactory trajectory. The implementation of a more standardized, open environment will result in more support available to projects and earlier corrections when required.

This proposed approach for bringing consistency and rigor to IT management was drafted in consultation with the Wisconsin IT Directors' Council (ITDC) – composed primarily of IT directors and chief information officers (CIOs) from state agencies – and endorsed by the ITDC Executive Committee. Lasting improvements in IT management can be achieved when agencies have opportunities for meaningful input and a stake in the collective product. In addressing these challenges, IT directors focused on a fundamental premise: What makes good business sense for the enterprise and can help agencies achieve their business objectives? The approach they adopted entails considerable effort and collaboration, but its net effect will leverage expertise across agencies and maximize an IT project's chances to deliver the intended business benefits. The approach demands a new level of interagency responsibility and information sharing, but because it was generated collaboratively and relies on continuing collaboration, the Department of Administration (DOA) believes it can succeed, and is confident it is the right formula for effective and productive IT management.

This report breaks down the new approach to IT management into four fundamental components:

- Improving IT planning;
- Establishing standards for IT project planning and management;
- Improving project monitoring; and
- Establishing collaborative organizational structures for IT management.

The report's final section presents status reports on individual IT projects requested by the Joint Legislative Audit Committee in its May 2 hearing, with detailed reports from the agencies provided in Appendix A.

IMPROVING INFORMATION TECHNOLOGY PLANNING

Modern businesses, including the business of government, cannot operate without assistance from computer systems. The required systems are costly to create and operate, and they play a critical role in delivering services to the public. The combined high profiles of cost and operational failure make project planning for creating new systems and replacing old ones a critical part of any business plan.

IT planning has been inconsistent in state government since its initiation. The formats required for agency IT plans have typically been created by the Department of Administration (DOA) and the review of submissions has been limited. Our new approach includes definition of a template by a team from state agencies, creation of a Web site that allows all agencies and legislative bodies to share plans, and a commitment by agencies to keep the plans current throughout the year rather than at an annual point in time. This access to and discussion of plans will result in better collaboration among agencies in sharing software, exchanging best practices, and increasing the quality of all plans to a consistent level.

Effectively leveraging IT expertise across the enterprise requires that agencies receive consistent direction on the IT planning process and, because they have input, buy into that process. Simply put, we can't benefit from each other's strengths and share in each other's successes if we don't have basic knowledge of what we're all doing.

Current statutes require agencies to submit annual IT plans to DOA in March, while an IT strategic plan is required in September of even-numbered years. In April 2007, the ITDC created and adopted a standardized format for annual IT plan submissions. Agencies submitted their fiscal year 2008 (FY08) plans to DOA in early June and DOA then published a FY08 IT plan (http://www.doa.state.wi.us/docview.asp?docid=6455&locid=155) based upon information from the agencies' plans.

The ITDC has agreed to continue refining the IT annual planning process, making it an ongoing conversation that more readily provides for analysis of plans. All active and planned IT projects will be included in the agency plans provided to DOA. The Web site for sharing IT plans has been published on an intranet available to state agencies.

Meanwhile, an ITDC subteam is guiding creation of the biennial IT strategic plan due in September 2008, which will integrate agency plans to generate a consistent statewide strategic plan for the use and application of IT. All ITDC members will participate in producing the plan, which will be published by DOA and submitted to the appropriate legislative committees and the Governor. The September 2008 IT strategic plan will provide common guidance for agency IT budgets submitted in the subsequent state biennial budget process.

High-Profile Project Identification

There are many projects underway in an organization as large as Wisconsin state government at any point in time. The success or failure of all projects is not equally felt; some cost more money than others and some directly affect public services much more than others. These "high-profile" projects deserve more attention to help ensure success. In the past, there has not been a mechanism for specifically identifying high-profile projects, and recognizing factors other than cost was difficult because of the wide range of businesses occurring within state agencies. The new approach adopts a federal standard for project risk evaluation, and leaves the labeling of "high-profile" to the business experts within agencies.

As agencies submit their IT plans, DOA's Division of Enterprise Technology will maintain a combined list of all projects identified, and, from that list, a subset list of projects regarded as high-cost or otherwise vital. (For ease of referral, this subset list of high-cost or otherwise vital projects will be called the "high-profile projects" list.) That list of high-profile projects will be the focus of interagency and legislative monitoring efforts.

Agencies will designate a project as high-cost or otherwise vital, and therefore it will be added to the high-profile projects list, if:

- The project's total cost is $1 million or more. This threshold is established in statutes for reporting to the Legislature's Joint Committee on Information Policy and Technology.
- Savings or new revenues of $1 million or more are projected to result from successful project completion.

Agencies will determine which projects costing less than $1 million will be considered otherwise vital to their functions, and therefore included in the high-profile projects list. The criteria agencies use to make that determination should include those developed by the federal Office of Management and Budget, including:

- Projects undertaken by an agency that has not consistently demonstrated the ability to manage complex projects;
- Projects that are related to an agency's essential mission or function; and
- Projects in which a delay or failure would negatively affect the agency's essential mission or function.

Any additional criteria established by the Information Technology Management Board (IT Management Board), the Joint Committee on Information Policy and Technology, or the Joint Legislative Audit Committee likewise will be applied in determining which projects compose the high-profile list. Also, particular projects will be added to the high-profile list based on the request of those groups.

The initial high-profile projects list will be adopted from the Legislative Audit Bureau's April 2007 Review of Information Technology Projects (LAB IT audit; table 9, page 21) and will be updated based upon agency notification and requests from

the IT Management Board, the Joint Committee on Information Policy and Technology, or the Joint Legislative Audit Committee.

ESTABLISHING STANDARDS FOR IT PROJECT PLANNING AND MANAGEMENT

Agreement on what makes an IT project high-profile was an important first step. The ITDC Executive Committee then drafted standards to help ensure the success of these critical projects. These standards establish a framework that promotes orderly progression and assists with measuring results. Applying these standards also should help agency managers detect issues that could prevent success, and know when a project needs to be redirected or restarted upon another path. When a new project is defined by our IT planning process, agency staff can quickly find the standards and policies governing such work on the shared Web site.

State agency IT directors have adopted the policies, standards and procedures described below, and will begin implementing them for new projects started after October 2007. DOA will assure that the standards are effectively communicated to agencies and provide orientation regarding the specifics of standards and the processes involved. For projects cited on the Legislative Audit Bureau's list (table 9, page 21) that are already well underway, agencies will provide monthly dashboard reports (green, yellow, or red status indicators for key milestones) through project completion. (See Appendix B for an example of a dashboard report.)

Policies for High-Profile Projects

Well-understood, standard policies for initiating and managing IT projects set the stage for project success. Although latitude is needed to allow for the wide range of projects occurring within state agencies, there are some basic best practices that will be applied to all high-profile projects.

- Every project must have an executive sponsor and a business sponsor. The responsibility for any agency project, IT or otherwise, rests with the department Secretary.
- Executive sponsorship should be as high in the agency as possible; whoever does serve as executive sponsor should have expenditure authority on behalf of the agency for the particular project. Both the executive sponsor and the business sponsor should be individuals at least at the level of division administrator.
- The business sponsor should be the individual making the presentation to the agency leadership regarding the project's importance, including its purpose and scope.
- The specific roles of the project manager, agency IT organization, business areas, DOA and vendor(s) must be defined for the project.
- Significant stakeholders (e.g., other agencies affected by the project) must be identified in the project's communication plan.

- The planning, reporting and monitoring of these projects must adhere to the standards adopted by the ITDC.
- Required documentation for these projects (see below) will be kept current and stored in a folder specific to the project at the agency in order to facilitate project monitoring efforts.
- DOA will assure that project monitoring is done for all high-profile projects.
- Policies for high-profile projects, and any subsequent updates to these policies, will be provided to the IT Management Board, Joint Committee on Information Policy and Technology and Joint Legislative Audit Committee. Project reports from monitoring efforts will likewise be provided along with any requested project documents.

Project Planning Standards

Most high-profile projects span a considerable amount of time from conceptualization through completion. Implementing standards to guide the planning process will help assure that all required communication occurs and that stakeholders over time always will be able to recognize the project status.

- All high-profile projects will require an initial charter that covers initiation through analysis. If the project moves forward after the analysis phase, all high-profile projects also must have a second charter covering the rest of the project. (See below for required elements in a charter.) The analysis phase should provide much more detailed and specific scope information about a project, which should be incorporated into the second charter.
- Project monitoring through an independent validation and verification process (IV&V – see below for details about the IV&V process) to validate adherence to planning standards will occur at the following points:
    - Identification of the business need for an IT project, conveyed in the project charter.
    - IT project initiation, possibly the start of business requirements gathering or creation of a Request for Proposals (RFP) for vendor support.
    - End of the analysis phase, to validate the project definition is complete and the plans for continuation meet best-practice standards.
    - Ongoing documentation reviews, to verify adherence to project management and IT standards best practices.
- IV&V reviews will concentrate on the existence, quality and timeliness of key standard project documents (see below for the list of required project documents).

Off-The-Shelf Software Evaluation Standards

Considerable money can be saved and significant project risk avoided when an available, off-the-shelf software package is found to satisfy most of a new system's functional and technical requirements. The key to successful use of off-the-shelf software is an accurate assessment of the fit of the packaged software to the

business needs, and evaluation standards can take much of the subjectivity out of that assessment.

The LAB IT audit and the Joint Committee on Finance stressed the importance of assessing the adequacy of off-the-shelf software and measuring the costs and benefits of software customization before initiating development. In response, the ITDC has adopted the following measures for ensuring that appropriate off-the-shelf software evaluations are incorporated into the project planning process:

- Unless there is compelling evidence that no suitable off-the-shelf package exists, all high-profile projects must use procurement mechanisms (a Request for Information (RFI) and/or a Request for Proposals (RFP)) to determine the viability of an off-the-shelf software solution.
- If it is determined that there is compelling evidence no suitable off-the-shelf package exists, that determination, and the process behind it (e.g., Web research, contacts with other agencies or professional associations) must be documented in the project folder.
- Whenever possible, an RFI should be used to establish whether an off-the-shelf solution is possible for satisfying the need at the time the need for a project is identified.
- After analysis establishes the scope of functional and nonfunctional specifications for the project, an additional RFI or RFP could establish the fit for any possible off-the-shelf solution.
- The Federal Information Technology Resources Board's guide (Appendix C) will be used to perform a risk assessment for off-the-shelf software.
- The rationale for any off-the-shelf selection that is not an industry standard must be clearly documented.
- A component evaluation must be performed after the design of a system to establish whether portions of a system can use off-the-shelf software.
- Off-the-shelf software evaluations should be specifically geared toward identifying potential solutions that offer software developed as a product. Software developed as a product is generally much more easily adapted to a specific location.

Policies and Procedures for Use of Master Leases

Master lease financing can make sense in an IT project when it is appropriate to spread the investment over a number of years and the project adds asset value to the agency. DOA has established the following policies and procedures for use of master leases that apply to all items financed through the master lease program, including IT projects:

- The agency completes a Request for Use and Approval form (DOA-2480; see Appendix D) and supporting documentation.
- If the request is for an "IT systems development project," the agency gathers the required DOA documents (schedule of deliverables, risk identification and mitigation plan, detailed business case justification).

- The agency submits completed Request for Use and Approval form, required DET documents, and other supporting documentation to the DOA Capital Finance Office.
- DOA review and approval of the request and supporting documents is completed in approximately 2 to 3 weeks and in the following order:
  - Capital Finance Office
  - State Budget Office and DET (DET reviews all requests that contain IT components)
  - Deputy Secretary
- DOA Capital Finance Office provides preliminary approval to the agency.
- The equipment/asset is procured and received by the agency.
- Agency completes a Notice of Equipment Acceptance form (DOA-2481; see Appendix E) and invoices to the DOA Capital Finance Office.
- A Lease Repayment Schedule is created by the DOA Capital Finance Office and final approval is requested from the DOA Deputy Secretary, agency, lessor, DOA Legal Counsel, and DOA Capital Finance Director.
- Invoices are paid and lease schedules take effect.
- Lease repayments are withdrawn from the agency's appropriation(s) on or about February 15 and August 15.

DOA will prepare annual reports on IT projects financed under the master lease program that include:

- The amount of financing approved during the previous fiscal year;
- Specific projects for which financing has been approved and amounts approved;
- Principal and interest paid by agencies on projects for which debt is outstanding, compared to total financing originally approved; and
- Projects for which all debt has been repaid during the previous fiscal year.

These reports will be provided on October 1 of each year to the IT Management Board and the appropriate legislative committees. See Appendix F for the State of Wisconsin Master Lease Program – Approval, Financing or Agency Repayment Activity In FY07 for IT Projects.

IT Project Procurements

DOA recognizes that improving the procurement vehicles and processes for IT projects increases the chances for project success or for protection of the state should the project encounter difficulty. The State Bureau of Procurement, working with the DOA Chief Legal Counsel's Office, has taken on several initiatives expected to be implemented in FY08:

- Standardizing templates for Request for Bid and Request for Proposals. This will improve efficiencies in the procurement process by providing consistent procurement information to vendors.

- Developing new contract templates to address issues such as performance measures for vendors, detail/schedule for vendor deliverables, criteria and

methodology for assessing liquidated damages, and clear contract termination or breach language.

- Developing IT-specific terms and conditions for contracts that are consistent with industry best practices. This will ensure the state has sufficient recourse and protection in the event that an IT contract fails to meet its objectives.

- Updating state agency purchasing delegation agreements. The State Bureau of Procurement delegates major purchasing authority to seven large state agencies. The delegation agreement defines statutory and procedural responsibilities that the agencies must meet to receive and maintain delegated purchasing authority. The bureau has modified the criteria used to award delegation authority to agencies, and has strengthened and clarified the agency responsibilities assumed with delegation.

- Auditing agency procurement practices to ensure agencies are meeting state statutes, administrative code and procurement policies. The bureau is developing a standard process for monitoring state agency purchasing activity.

- Strengthening current procurement training. The training will include technical procurement topics such as negotiation skills, contract drafting, benchmarking, performance-based contracts, and contract administration and management.

One of the drivers behind attorney consolidation is the ability to provide consistent expertise and oversight for high-profile IT project procurement and contracts across the enterprise. To avoid inconsistency and to produce the strongest contractual language possible, DOA attorneys will review all contracts and procurements for high-profile IT projects.

Project Management Standards

There is no current set of project management standards being used by state agencies. The ITDC has sponsored a series of project methodology and project management best practice presentations during the past two years, and these have helped agencies start moving toward common practices. The new set of standards adopted as part of this report will promote common project management practices and help assure that major checkpoints are not missed.

The methods for measuring project performance adopted by the ITDC utilize data related to cost, schedule, and scope as well as quality. Successful collection of this data requires the project being managed in the following ways, with all the accompanying documentation stored in the project folder at the agency:

- The business case must establish a quantifiable value to the organization.
- Performance criteria are defined by which the project will be measured.

- Project costs, schedule, scope, and quality performance measures are tracked during the project.
- Sign-off by stakeholders on changes to the project denote acceptance of the changes.
- A baseline is established at the start of the project specifying milestones, deliverables, and tasks related to labor and non-labor costs.
- A new baseline is established if the schedule, cost, or scope changes.
- Variances between planned and actual status are documented.
- Time is tracked to the task level.
- A project issues log is maintained.
- A deliverables defects list is maintained.
- The agency identifies project risks and manages them according to a project-specific risk management plan.
- Performance criteria are based on data that are continually updated to reflect approved changes and findings.
- Results of design reviews, tests, and other quality assurance activities are formally tracked.

Agencies will define performance measures based on the specific goals identified in the project charter. The results will be measured and reported in the required status reports described below.

Documentation Standards

IT projects can vary dramatically in the functional and technical goals they need to meet and in the approach taken to attain the goals. However, at some basic level, all projects are similar and should produce similar documented results. All projects need various iterations of proposals for future work; all projects need documented business requirements; all projects need a scope of implementation that is clearly defined after analysis is completed.

This set of documentation standards will help establish a baseline for all projects. This will assure that major items are not missed, and that anyone reviewing a project will have a standard checklist to compare to specific project documents. Documentation reviews are a very powerful method of monitoring project status and of bringing new team members up to date.

The following documentation should be readily available for any project following the project planning and management standards described above. These documents will be stored in a folder specific to the project for any entities with authority to review the information. The documents will be a key resource for IV&V reviews.

- Project charters including at least:
  - Project description
  - Project goals
  - Executive sponsor(s) and business sponsor(s)
  - Required resources

  - Project governance (proposed roles of the business area, agency IT, DOA and vendors should be identified in the initial charter or business proposal)
  - List of stakeholders who need to be actively involved
  - Cost-Benefit Analysis/Business Case
  - Time-to-completion estimate
  - Change control process (see "Project Change Control Process" below)
- Business requirements – documentation of the business functions and data in the proposed project area (high-level use cases, process model).
- Context-level diagram – a graphic or text that clearly defines the processes and data that will be included within the scope of the development project and that illustrates other systems and data with which the project will interface.
- Analysis documentation – illustrates comprehensive analysis of the in-scope business requirements and establishes what will be developed by the project; could include a data model, analysis object model, detailed use cases, business rules, user interface points, actors, non-functional requirements, and other documentation that provides a concrete definition of the deliverable contract between business areas and the project team.
- Communication plan (if not included in the charter) – details frequency and recipient groups for reports on milestones, progress and problems.
- Procurement documents – RFI/off-the-shelf software evaluation (see "Off-the-Shelf Software Evaluation Standards" above), RFP, RFB (Request for Bids), or standing offers.
- Risk assessment documentation.
- Project components – documentation that breaks the project scope into the smallest subsets of functions that can be implemented or demonstrated.
- Test plans – prepared from business requirements and component analysis.
- Statement(s) of work for all work going on at any point in the project – including a plain-English text description of work, assumptions, scope, responsibilities and current estimates.
- Work plans – a regularly updated work breakdown structure (WBS), schedule and resource plan for work to be completed.
- Change documentation (see details described below).
- Monthly (at a minimum) status reports that include project performance measures.
- Contract(s) – firm fixed price, time and materials, cost plus, time and materials to a fixed maximum, change orders, contract amendments – if the project is entirely internal to the agency, and thus involves no contracts with vendors, the project folder should still include documentation between the IT and business areas regarding agreements on the work to be done.

Estimating Standard

It is difficult to provide accurate estimates for systems development work due to the large number of variables involved, especially when working with new technologies and in a dynamic business environment. When considering an estimate, it is critical to know the basis upon which it was formed. When the estimate is based on an idea for automation, it might indicate a fairly wide range,

since the scope of development could vary considerably. Only after analysis defines a "contract" for development between business experts and a systems development team should the estimate be labeled as a true development estimate. It is very important that all estimates be labeled clearly, and that all but those with a clearly established scope be given as a range. This clear labeling will prevent comparison of numbers that should not be compared.

Estimates should be generated at the following points in a project:

- At the time the charter is constructed.
- After business requirements are assembled.
- After the analysis phase or RFP response.
- At the time the statement of work is completed.
- At any times there are changes in the project.

The first point at which a reasonably reliable estimate for a development project can be generated is after the analysis phase, i.e., when the scope of functional and nonfunctional specifications for the project has been established and the business area has agreed to what the project is supposed to produce. Generating a reasonably reliable post-analysis estimate depends on the following factors:

- The analysis was thorough;
- The project involves existing technology; and
- The project team is experienced in the technology and stays intact.

Once an estimate is generated, a change control process is required to document all agreed-upon changes in project scope and corresponding changes to the project's cost and completion schedule.

Agencies can use the estimating tool they believe best fits their project management methodology. The Department of Workforce Development provided one endorsed by the ITDC Executive Committee (see Appendix G).

IMPROVING PROJECT MONITORING

For any project to succeed, there is no substitute for effective day-to-day management by the project team, and the standards for IT project planning and management described above provide essential direction. At the same time, all projects can benefit from the monitoring and advice of an independent team of experts. High-profile IT projects in state agencies will be monitored through an independent validation and verification (IV&V) process, which involves experts from outside a project team reviewing and validating project progress. An IV&V team could consist of contractors, state staff or a mix of the two, depending on expertise and workload. The goal of the IV&V team is to assist the project team in meeting objectives.

Reviewing documentation, conducting on-site visits, attending project meetings, interviewing team members or others involved in the project can all be part of the monitoring process. Providing the staff to monitor other projects will remove them from working on their own development projects for the time required, but the long-term gain in project quality and standardization should make up for the cost.

Routine Monitoring

- IV&V reviews will include assessment of financial status, adherence to standard project management principles, adoption of IT industry technical standards, and satisfaction of the business goals.
- The IV&V process adopted by the state will be conducted by state staff and contractors. The methods used and deliverables produced will evolve as the process matures.
- All high-profile projects will be reviewed by an IV&V team. The team members will have played a leadership role on a project of similar size, scope and complexity.
- If a high-profile project is considered too large for the ITDC to provide an IV&V team with appropriate experience, or if the ITDC does not have resources to provide a team, the agency with the high-profile project will need to contract for an IV&V effort.
- The ITDC Executive Committee plus CIOs or IT directors from agencies with projects to be reviewed will serve on an ITDC Steering Team to help monitor high-profile IT projects.
- Every high-profile project identified in IT plans will have an IV&V review of the project charter as soon as it is accepted within the agency.
- IT procurements will be reviewed for involvement of business, procurement, legal, technical architecture, and project management experts. The procurements also will be reviewed for adherence to standard procurement templates, clarity and critical sign-offs.
- Every high-profile project will receive two reviews of 1 to 5 days yearly, and project milestones and documentation will be reviewed between IV&V reviews. The audits will be based on the planning standards adopted by the ITDC and will evaluate project documentation and performance indicators.

- Reports from the IV&V team, along with any recommendations for action, will be reviewed by the project management of the project being reviewed, the ITDC Steering Team, the Secretary's Office for the audited project, DOA, the IT Management Board and appropriate legislative committees.
- Project charters, component architectures and design statements of work for all high-profile projects also will be reviewed by the Wisconsin Systems Architecture Team – a multi-agency team of senior technical staff who will assure that the project is based on common IT industry standards.
- DOA's Server Consolidation and the Integrated Business Information System projects have been offered as pilots for the IV&V review process.

IV&V monitoring of new, high-profile projects during the FY08-09 biennium requires expenditures that were not planned in current budgets, and resources assigned will need to come from other planned efforts. For projects beginning in future biennia, however, budgeting for IV&V will be built into the project planning process.

Project Change Control Process

The quality of an initial estimate will be compromised if there is not a process in place to update that estimate. All changes need to be thoroughly analyzed for impact and documented so that project sponsors understand the impact on schedules and costs. The implementation of a standard change control process will make project monitoring and reporting much more manageable and meaningful.

All project charters must include the definition of a change management process for that project, including the following components:

- Change Control Board – the board that oversees the change process. This board should include the project management, executive sponsor, business sponsor, project stakeholders and project steering committee.

- Change Request – a formally submitted document used to track each stakeholder request (including new features, enhancement requests, defects, changed requirements and technology changes) and the estimated impact to the project in terms of cost, schedule, scope or risk. The change request document indicates agreement to proceed by means of signature(s) of predetermined project representatives as designated in the project charter and may become a contract document. All change history will be maintained with the change request, including dates and reasons for the change. This information will be available for any reviews and for final closing.

- Critical Change Definition – a formal definition that defines what kind of project change needs to be communicated and approved at the highest levels of project management and sponsorship. Examples of these would be changes resulting in contract amendments and significant changes in project resources (people, money or business staff), schedule, budget, time and risk.

- Change Request Workflow and Escalation Process – the process specifying the documentation, workflow, approval and escalation procedure for change requests, including the process for those changes considered critical.

- Change Request Reporting – documentation about changes and their approvals in the project folder. For those projects that have oversight by other agencies, the changes identified as critical must be reported to the oversight agency along with the anticipated effects on the project.

Project Recovery or Termination

If an IV&V report recommends project termination, that decision will be made either by the agency Secretary in consultation with the DOA Secretary, and reported to the IT Management Board.

Guidelines for when a project is a clear candidate for recovery (e.g., redefining the project, changing leadership, adding resources) or termination include:

- The project is over budget due to underestimation of the effort or changes in scope.
- Disconnect exists among key project stakeholders.
- The project encounters significant technical issues or is based on a technology no longer valid.
- The business processes within the scope of a project have changed significantly.
- New legislation negates or significantly changes the project's purpose.
- Project performance measures indicate recovery or termination is warranted.
- The vendor is in financial difficulty.
- The project's schedule changes dramatically.
- The quality of a deliverable is unacceptable.

ESTABLISHING COLLABORATIVE ORGANIZATIONAL STRUCTURES FOR IT MANAGEMENT

Collaboration and shared information—between agencies, DOA, the ITDC, the IT Management Board and legislative committees—is the hallmark of the new approach toward IT management. By drawing on the expertise of all these groups (see Figure 1), through consistent and well-understood reporting mechanisms, the State of Wisconsin can improve the results and cost-effectiveness of IT projects.

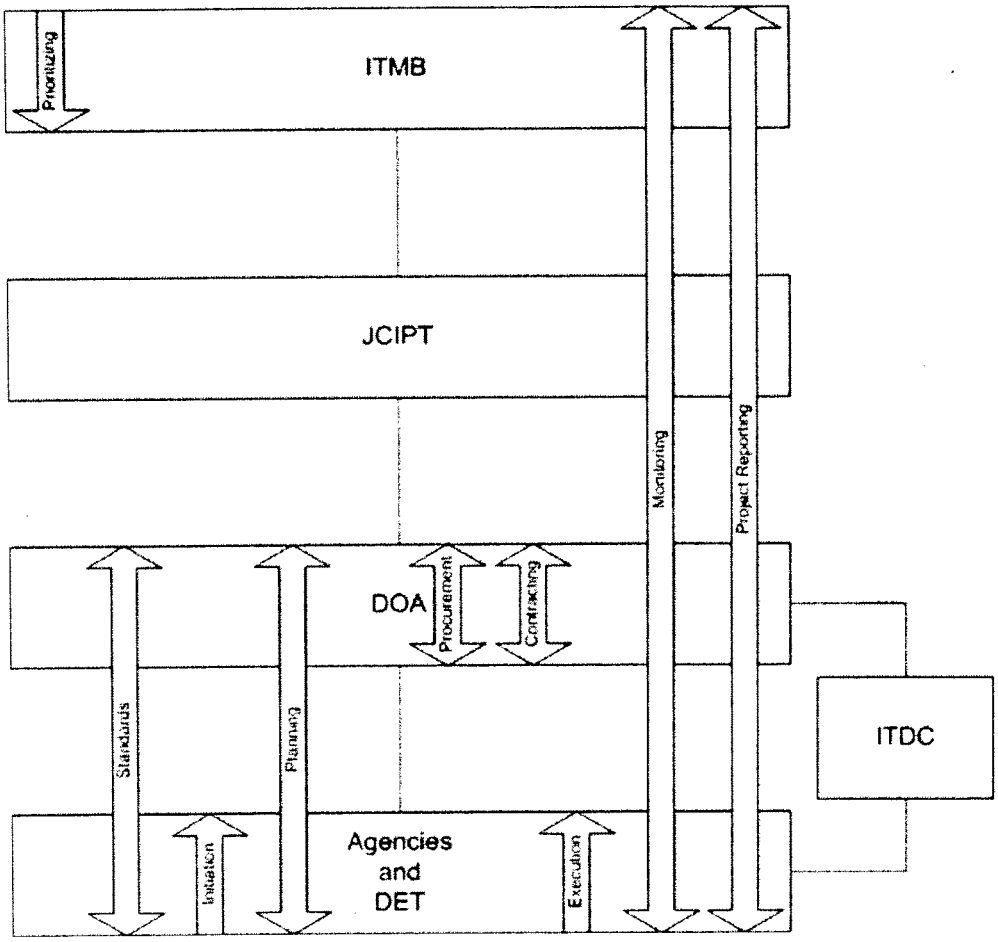

Figure 1. Organizational Components of IT Project Management

The IT Management Board is authorized to advise DOA in the management of the state's IT assets and monitor progress on IT activities undertaken by state agencies. The board's membership includes the co-chairs of the Joint Committee on Information Policy and Technology and the Governor or his designee.

The ITMB was inactive during the FY06-07 biennium in part due to the inactive status of the Joint Committee on Information Policy and Technology (see below). The IT Management Board is a critical link between the Legislature and the executive branch in providing frequent and consistent feedback and oversight for complex IT projects. The IT Management Board should regularly review cost estimates and overruns, timelines and other benchmarks to ensure quick action on projects that are struggling to meet estimates.

The Joint Committee on Information Policy and Technology was created in 1991 and is authorized to require semiannual reports from DOA on IT projects with anticipated costs of $1 million or more. DOA believes that a functioning, strong Joint Committee on Information Policy and Technology, with active co-chairs who also participate as members of the IT Management Board, will provide not only robust oversight over agency IT projects but provide an essential communication mechanism to the entire Legislature regarding IT management as a whole. The committee should be involved in regular project monitoring and should review DOA plans for setting IT project standards and reporting mechanisms for executive agencies. The committee also should review the work of the IT Management Board and agency strategic plans in advance of the state's biennial budget process.

Greater cooperation and oversight will improve the transparency of IT project planning and financing, and timely recognition of problems then becomes much more likely. A greater emphasis on giving state agency personnel the tools they need to control high-risk projects, such as contract management training and standard contract language and templates, is also a priority.

The State Chief Information Officer (CIO) has a key role in ensuring that this collaboration and information sharing takes place, and that project management standards are being consistently communicated and applied. The ITDC is an important bridge providing agency input to DOA, as DOA fulfills its planning and standards-development responsibilities, and the State CIO will work extensively with the ITDC to take full advantage of expertise in the agencies.

PROJECT STATUS REPORTS

Below are summary status updates for projects highlighted in recommendations from the Legislative Audit Bureau's April 2007 Review of Information Technology Projects. See Appendix A for the full reports from the respective agencies.

Customer Waiting Times for Division of Motor Vehicles Services

The Department of Transportation's Division of Motor Vehicles (DMV) reports that the Registration and Titling System is working well. The time required to serve 80 percent of the customers who visited DMV service centers was 35 minutes or less for July through September 2007, compared to 50 minutes or less for the same three months in 2006. Also, from January through August 2007, DMV has served more than 70 percent of its service center customers in 30 minutes wait time or less, with 56 percent being served in under 20 minutes.

Department of Revenue Conversion to New Sales and Use Tax Software

The project is on time and on budget. The Department of Revenue (DOR) is approximately two-thirds of the way through its timeline for the sales and use tax rollout, with implementation planned for December 2007. Progress on all aspects of the project is on schedule. Seven full mock conversions of data from the legacy system into the new system have been run, with two more planned before the rollout date. In the most recent full mock conversion, virtually all customers successfully converted. DOR business staff are actively working to review and verify this converted data.

DOR has improved its project management cost accounting and now captures all personnel costs related to a project. DOR also has modified its methods to include interest as part of the master lease costs.

Department of Workforce Development SUITES Project

The Department of Workforce Development's (DWD's) SUITES (State Unemployment Insurance Tax Enterprise System) project is progressing steadily and nearing completion. DWD is allowing only system changes deemed critical to system functionality. Changes or enhancements considered not critical to system functionality are being deferred for later consideration. Primary tax deployment is planned for December 2007 and implementation of the collections and reports module is planned for May 2008. DWD estimates the project cost at $47.2 million.

Department of Workforce Development EnABLES Project

DWD suspended the EnABLES (Enhanced Automated Benefits and Legal Enterprise System) project in February 2007. DWD initiated a project in July to replace the packaged software they were attempting to implement with an in-house system that retains the same functionality but will be easier and less expensive to maintain and support. Initial project estimates indicate an 18-month timeline and cost of $1.6 million.

DWD has embarked on a re-engineering effort for handling unemployment insurance appeals. The agency seeks efficiencies through streamlined processes, elimination of unnecessary steps, and other process improvements to improve quality and time management, as well as reducing costs while optimizing customer service. The re-engineering also will seek to identify areas where technology can enable more efficient processes.

DWD is conducting research into viable alternatives for replacing the current, outdated IDMS (Integrated Database Management System) mainframe database technology. The assessment will include research and examination of other public and private entities that have migrated from IDMS to newer mainframe technologies. The cost analysis and recommendation on how best to proceed will be completed in October 2007.

Department of Administration Server Consolidation Project

A primary focus for consolidating additional servers in FY08 involves relocating approximately 500 servers from the East Wilson Street data center to the Femrite data center. To date, 143 of those servers have been moved and the remainder will be relocated within the fiscal year.

Another main focus in this fiscal year for server consolidation is working with agencies to plan consolidation of agency servers. The approach to consolidation planning has shifted from merging applications as we consolidate to consolidating servers first and then merging applications on common servers. This will allow a more predictable schedule for consolidation, which will be driven by the business and project development cycles within agencies.

DOR has prepared a plan to move their first major application to the Femrite data center and have it in production by early January 2008, followed by the remainder of their servers by fall 2008. Several other agencies are in a planning stage for moves within this fiscal year. Working with agencies, DOA is preparing a plan to complete most physical consolidation of agency servers to the Femrite data center by the end of FY10.

The cost to date for consolidation has been approximately $40 million. For FY08 the projected cost is approximately $25 million with expected recovery of about $5 million. The deficit created by consolidation costs will be recovered through

assessments over a 20-year period starting in FY08. By the end of the planned three-year consolidation, annual costs for providing the services will be recovered through service rates. DOA will provide space to other agencies and local governments at the East Wilson Street data center for disaster recovery purposes to help defray consolidation costs.

Department of Administration E-mail Consolidation Project

E-mail consolidation has been proceeding as planned and will be completed in 2008. The agencies consolidated to date are using Exchange 2003 and the new software version, Exchange 2007, is being tested. After adequate testing, the consolidated agencies will be moved to the new version and the remaining agencies will be moved directly to Exchange 2007.

Twenty-five agencies have e-mail servers consolidated, or approximately 21,000 of a likely total of 35,000 accounts. Planning for e-mail consolidation is underway with the Department of Regulation and Licensing, the Department of Financial Institutions, the Department of Health and Family Services, the Department of Workforce Development, and the Department of Transportation. E-mail consolidation will be completed in 2008. The cost to date for e-mail consolidation is $9.7 million.

Department of Administration Integrated Business Information System Project

The Integrated Business Information System project has completed the gathering of business requirements and is preparing to enter the first implementation phase. This initial implementation will include the Purchasing Requisitions/Purchase Order process and its associated Accounts Payable process, a shadow General Ledger, Purchasing Solicitations (Bidding), and Asset Management.

DOA has completed a project director recruitment and an offer of employment is imminent. A Request for Bids (RFB) has been reissued to find qualified vendors to respond to requests for services to help staff the project. Additional recruitment for PeopleSoft developers and support staff is underway.

The estimated cost for this initial implementation is approximately $16 million at this point, although the scope of work and proposed schedule has not been approved by the project Executive Steering Committee. The implementation date is March 31, 2009. To date, the project has spent $10 million.

APPENDICES

Appendix A: Detailed status updates from agencies regarding projects highlighted in recommendations from the Legislative Audit Bureau's April 2007 Review of Information Technology Projects

Appendix B: Sample of IT project dashboard report

Appendix C: Assessing the risks of commercial off-the-shelf applications: lessons learned from the Information Technology Resources Board—Federal Information Technology Resources Board

Appendix D: DOA Form 2480—State of Wisconsin Master Lease Program—Request for Use and Approval

Appendix E: DOA Form 2481—State of Wisconsin Master Lease Program—Notice of Equipment Acceptance

Appendix F: State of Wisconsin Master Lease Program—approval, financing or agency repayment activity in FY07 for IT projects

Appendix G: Project estimates tool from the Department of Workforce Development

APPENDIX A

Detailed status updates from agencies regarding projects highlighted in recommendations from the Legislative Audit Bureau's April 2007 Review of Information Technology Projects

Wisconsin Department of Transportation
www.dot.wisconsin.gov

Jim Doyle
Governor

Frank J. Busalacchi
Secretary

Office of the Secretary
4802 Sheboygan Avenue, Room 120B
P O Box 7910
Madison, WI 53707-7910

DOT Report to Joint Legislative Audit Committee
October 1, 2007

In its review of the Division of Motor Vehicle's Registration and Titling System in April 2007, the Legislative Audit Bureau recommended that the Department of Transportation report on whether customer wait times for DMV services have declined since June 2006.

Since implementation of the Registration and Titling System in December 2004, DMV has used the system to produce 18 million products. The system supports DMV's legislative mandates efficiently and reliably. In short the system works, and works well.

The data below reflects the time required to serve 80% of the customers who visited DMV Service Centers for both vehicle registration and titling and driver license products. It is also important to note that from January 2007 through August 2007 DMV has served over 70% of its service center customers in 30 minutes wait time or less, with 56% being served in under 20 minutes.

Quarter	Minutes to Serve 80 Percent of Customers at DMV Service Centers	Days to Process and Mail 100 Percent of Mail-In Titles
2005		
January through March	45	64
April through June	50	63
July through September	47	81
October through December	38	74
2006		
January through March	38	63
April through June	48	39
July through September	50	45
October through December	35	30
2007		
January through March	40	47
April through June	42	47
July through September	35	43

Customer wait times for DMV services fluctuate with economic changes, demand for certain services, seasonal changes in vehicle sales and seasonal changes in staff availability. Changes in statutory and administrative requirements also play a role in how quickly customers are served.

State of Wisconsin • DEPARTMENT OF REVENUE

2135 RIMROCK ROAD • P.O. BOX 8933 • MADISON, WISCONSIN 53708-8933 • 608-266-6466 • FAX (608) 266-5718 • http://www.revenue.wi.gov

Jim Doyle
Governor

Roger Ervin
Secretary of Revenue

The Status of the DOR Conversion to New Sales and Use Tax Software

Legislative Audit Bureau Recommendation:

We recommend the Department of Revenue report to the Joint Legislative Audit Committee by October 1, 2007, on the status of conversion to FAST sales and use tax software, and its plans to include its own staffing costs when determining the software's total cost.

The Department of Revenue Response and Status:

The Department of Revenue (DOR) WINPAS project is approximately two-thirds of the way through its timeline for the sales and use tax roll-out, which is planned to be implemented December, 2007. To date, the progress on all aspects of the project are on schedule.

Requirements definition has been completed. Seven full mock conversions of data from the legacy system into WINPAS have been run, with two more planned before rollout date. In the most recent full mock conversion, virtually all customers successfully converted. DOR business staff are actively working to review this converted data to verify its accuracy.

System testing, designed to verify that specific functionality works correctly, began in mid-July and is scheduled to continue through mid-October. As of September 11, 2007, approximately 60% of test scenarios have been completed and approved. Parallel and end-to-end testing, in which complete batches of real-life returns will be processed through the system, are scheduled for October and the first half of November.

A cutover plan, which includes a step-by-step roadmap to shutting down the legacy system, conversion and reconciliation, has been drafted and is being refined. Work is starting on the plan for controlled production after cutover.

To address county/stadium tax distribution in particular, DOR has assembled a specific team of testers to conduct intensive testing of distributions. This team includes DOR staff familiar with the issues that were experienced in the legacy system and the system assurance work that was used to correct those problems. Staff have incorporated into the test plan the scenarios that were used to verify legacy system accuracy. This specialized testing began in August and is nearing completion. Issues identified to date are in the process of being resolved. Also, several queries are being designed to help identify equipment scanning and/or taxpayer error in reporting county taxes.

DOR has improved its project management cost accounting. The introduction of the enterprise Payroll Time and Attendance (PTA) system enabled DOR to expand its project accounting to the full agency. This system captures all personnel costs related to a project. DOR also has modified its methods to include interest as part of the master lease costs.

In summary, this project is on time and on budget.

September 18, 2007

Department of Workforce Development
Office of the Secretary
201 East Washington Avenue
P.O. Box 7946
Madison, WI 53707-7946
Telephone: (608) 266-3131
Fax: (608) 266-1784
e-mail: dwdsec@dwd.state.wi.us

State of Wisconsin
Department of Workforce Development
Jim Doyle, Governor
Roberta Gassman, Secretary

DWD Report to Joint Legislative Audit Committee
September 19, 2007

The Legislative Audit Bureau Recommendations in their report of April 2007 indicated that DWD should report on the status of two of its largest projects by October 2007: SUITES (State Unemployment Insurance Tax Enterprise System) and EnABLES (Enhanced Automated Benefits and Legal Enterprise Services).

The goal of these two projects was to modernize computer systems that are more than 25 years old. While enhancements and modifications have been made over the years, DWD needed to take advantage of technological advances, increase system efficiencies and increase programming flexibility, and therefore began full scale efforts to replace the two systems.

This paper summarizes the steps DWD has taken since the LAB report and our report to the Joint Audit Committee in May:

LAB's SUITES Recommendations:

We recommend the Department of Workforce Development report to the Joint Legislative Audit Committee by October 1, 2007 with:

1. *specific milestones necessary for completing SUITES software development;*
2. *methods for limiting further addition of functions not required to meet Unemployment Insurance program requirements in remaining SUITES development; and*
3. *revised, detailed project cost and time line estimates.*

DWD's SUITES status as of October 2007:

1. Milestones:
   SUITES is progressing steadily and nearing completion.
   - June 2007: programming completed
   - Mid-July: User Acceptance Testing began
   - Two weeks prior to deployment: All staff trained
   - Two weeks prior to deployment: User Acceptance Completion and System sign off
   - Two weeks prior to deployment: Mock deployment exercise
   - One week prior to deployment: Performance tuning
   - December: Statewide deployment
   - May 2008: Implementation of collections and reports module.
2. Limiting further addition of functions:
   - Only system changes which have been deemed critical to system functionality have been allowed. Changes or enhancements which are not critical to system functionality have been deferred for later consideration.
3. Detailed time line and cost estimates:
   Time line:
   - Primary tax deployment: December 2007
   - Collection module and reports: May 2008

   Cost estimates:
   - $47.2 million

LAB's recommendations for EnABLES stated:

We recommend the Department of Workforce Development report to the Joint Legislative Audit Committee by October 1, 2007, on its progress in:

1. *completing a detailed assessment of the costs and benefits of continuing to maintain or customize Cúram software for use in EnABLES or other unemployment insurance systems; and*

2. *modifying or streamlining its business processes before pursuing any further software development for EnABLES or other unemployment insurance systems.*

DWD's EnABLES status as of October 2007:

Following the suspension of the EnABLES Project in February 2007, UI re-examined options for modernization of the Benefits System and the Appeals System and has concluded that several actions should be taken immediately so UI can continue to meet its obligations to its customers.

1. Cost and Benefit Assessment
   - DWD conducted a cost/benefit analysis of viable alternatives for replacing the current, outdated IDMS mainframe database technology. The analysis clearly indicated that the Curam platform should be replaced with an in-house application utilizing DWD standard software.

Option and Costs	SFY 2008	SFY 2009	SFY 2010	TOTAL
Status Quo	$843,600	$1,350,900	$859,100	$3,053,600
Custom Build	**$907,700**	**$703,000**	**$0**	**$1,610,700**
Upgrade Curam	$1,303,400	$1,183,300	$687,300	$3,174,000

   - DWD initiated a project in July to replace the costly Curam framework with an in-house system that retains the functionality provided by the Curam framework but will be easier and less expensive to maintain and support.
   - Initial project estimates indicate an 18-month timeline and costs of $1.6 million

2. Modernizing and streamlining business processes:

   - DWD has embarked on a re-engineering effort for handling of unemployment insurance appeals. The re-engineering effort will seek efficiencies through streamlined processes, elimination of unnecessary steps, and other process improvements to improve quality and time management, as well as reduce costs while optimizing customer service. Department staff and other members of the reengineering team will seek to reduce the time and resources expended in scheduling appeals, conducting hearings and issuing and mailing decisions. The team will especially focus on attempts to compress appeal cycle time, by various means, such as by simplifying case-by-case scheduling requirements and reducing or eliminating certain time consuming correspondence with parties. The re-engineering will also seek to identify areas where technology can enable more efficient processes, such as by automating the calendar functions, bar coding data for input, using automated dialers for telephone hearings and increasing centralized mailing of decisions.

   - UI is also conducting research and analysis of viable alternatives for replacing the current, outdated IDMS mainframe database technology. The assessment will include research and examination of other public and private entities who have migrated from IDMS to newer mainframe technologies and will examine alternative solutions. Four alternative solutions are being analyzed: (1) in-house, manual conversion of IDMS; (2) purchase automated conversion tool; (3) enhance current IDMS; and (4) maintain the status quo. The cost analysis and recommendation on how best to proceed will be completed in October.

JIM DOYLE
GOVERNOR
MICHAEL L. MORGAN
SECRETARY
Office of the Secretary
Post Office Box 7864
Madison, WI 53707-7864
Voice (608) 266-1741
Fax (608) 267-3842

WISCONSIN DEPARTMENT OF ADMINISTRATION

Report to the Joint Legislative Audit Committee on the Server Consolidation Project October 1, 2007

The Legislative Audit Bureau recommended in its April 2007 Review of Information Technology Projects that the Department of Administration (DOA) should report to the Joint Legislative Audit Committee by October 1, 2007, with:

- *A revised time line for server consolidation; and*
- *A revised analysis of server consolidation to include all implementation costs, as well as anticipated revenues to be generated from agency charges.*

This paper addresses that recommendation and summarizes the state's current approach and activities for the server consolidation project.

Server consolidation is a business strategy, with transition activities that fit into the business cycles and ongoing activities of all affected agencies. Implementation of the strategy requires strategic leadership, business planning, information technology (IT) support and financial balancing. Strategic leadership is provided by the Cabinet, business planning is provided by the business leaders in Cabinet agencies, IT support is provided by the state agency IT staff and the Division of Enterprise Technology (DET), and the financial balancing is provided by DOA and other agency budget directors.

Scheduling is the key factor to consolidation, and that is solidly in the hands of the business areas within each agency. Many of the state's business areas have uneven, cyclical workloads that make application moves too risky to their business functions at certain times of the year. The development or update of application software will also factor into the timing of application moves. Most agencies have a full workload for their IT staff, creating and updating applications that provide benefits specific to that agency. The efforts required to move their servers to the Femrite data center will take agency staff away from the agency application work. DOA will work closely with agency system planners to enable server consolidation to continue at an acceptable pace, while respecting the urgency of other IT work within the agency. For some agencies the age of their servers, the state of their computer rooms, or their ability to support their servers make consolidation a top priority.

We will continue to work with all agencies to create application relocation schedules that fit business cycles and also fit into our overall plan to have all servers consolidated by the end of FY10. The IT directors of each agency will be responsible for creating a standardized plan indicating when each application should ideally be relocated, the components involved in the move, and the dependencies for the relocation. The first draft of their plans will be part of the FY09 IT plans due to DOA in March 2008.

The cost of transition from disparate locations to the consolidated environment will be apportioned by the State Budget Office in conjunction with agency budget directors. There is currently about $40 million in past costs associated with the server consolidation process. The FY08 budget for consolidation services is about $25 million and we expect to bill about

$5 million back as services. Depending on the schedule of consolidation and new billing, the budget for server consolidation will continue to run a deficit for FY09 and FY10. This total cost of transition will be recovered over a 20-year period through annual assessments beginning in FY08.

While the IT directors are creating their consolidation plans, DOA will continue to prepare for the consolidated environment. Moving most of the 500 production servers currently in the East Wilson Street data center to the Femrite data center is a top priority. The East Wilson site will be prepared as a disaster recovery site. DET also will address some organizational shortfalls by hiring or assigning:

- A consolidation project management team;
- Technical architecture staff to design the evolving environment;
- Business planning staff to create a complete business strategy; and
- Operations staff more versed in application support.

DET also will set up user groups composed of agency IT staff to help direct our data center operations, application environment support, business services, business planning and technical architecture services.

Consolidation will generally occur in stages – by application or by groups of applications/services. For a specific application or group, the stages will likely include actions to temporarily inactivate the application at the agency site, relocate the servers and software, and then test the application at Femrite. The relocation will be followed by a period of production during which possibilities for sharing resources are explored by the agency application staff and DET infrastructure support, and then settlement into an agreed-upon production environment. In some cases the co-location step may be skipped if merging the application or group into a shared environment appears to be low risk.

The benefits of consolidation emanate from sharing resources. Sharing a building, utilities, networks and operations staff – i.e., physical consolidation – is a practical initial step. In its simplest form, the system configurations from agencies are relocated intact to the data center and continue to function and be supported in much the same ways as when they were in multiple locations. The main benefit is the resiliency provided by sharing a building specifically designed to provide continuous data processing. There are also significant benefits to disaster recovery planning if the main processing power for the state is in one location and the back-up sites are also shared. Currently there is limited back-up for any of the state data centers and computer rooms, and achieving Continuity of Operations and Continuity of Government (COOP/COG) goals will be less expensive with a shared solution.

Sharing processors and software is a much more difficult step than sharing facilities, and will require more effort to realize. Even though a processor may be only marginally consumed by an application, having another application use the extra capacity may require specialized software and/or application modification. The applications supporting agencies have been created over many years and on many different technologies, so modifying some of them to share configurations for the remainder of their useful life may not be worth the expense. At a minimum, substantial planning, analysis and testing will be required to allow two applications to share processor capacity or common software. Each additional application added into the shared environment increases the amount of planning, analysis and testing required in completing the implementation. While these are difficult steps, there can be significant benefits from saved processor and software costs over the life of the applications, provided that there is commonality in their architecture. Throughout the consolidation process, any opportunities for sharing processors or software will be thoroughly investigated.

Sharing data resources that can be shared is probably the most difficult part of consolidation, but the one that will avoid the most cost over time. Managing data is a very large effort for the state, and the effort is increasing exponentially, as more scanned images, photos, sketches, video and voice clips become part of our normal working tools. The data are also becoming more useful as they can be downloaded for remote use, shared among agencies, and used for transaction processing, data warehousing and e-mail communication. Minimizing storage needs while protecting data security and still assuring proper data management is a critical task that requires attention from all agencies. When data are consolidated, the very difficult and expensive task of data management will become simpler in many respects, and finding effective ways to share data resources remains a key longer-term goal of server consolidation.

The server consolidation strategy will be employed into a rapidly changing technology environment. Methods for sharing processors, software and data are becoming more sophisticated very quickly as vendors realize the potential market for these tools. An approach adopted to implement a virtual server environment today will not be the same a year from today and will need to be updated through some conversion process.

Our current emphasis on physical consolidation reflects that reality. It allows the state to take immediate advantage of enhanced site resiliency capabilities at a time when the technology industry might soon produce more efficient and cost-effective options for server virtualization. Any schedule defined today to reach a consolidated environment for processors, software and data for the state would be constructed on layers of guesses. The agencies need some time to define the effort required to temporarily inactivate or inhibit their applications and reconstruct an environment at DET to reconnect to their applications. They also need time to define acceptable periods in their business cycle to make changes, and DET needs time to work with the agencies to resolve conflicts in these windows among agency plans. If we focus on co-locating servers as a transitional step, the merging of these plans will help us reliably predict how many servers and applications can be relocated by specific dates during the next three fiscal years.

WISCONSIN DEPARTMENT OF
ADMINISTRATION

JIM DOYLE
GOVERNOR
MICHAEL L. MORGAN
SECRETARY
Office of the Secretary
Post Office Box 7864
Madison, WI 53707-7864
Voice (608) 266-1741
Fax (608) 267-3842

Report to the Joint Legislative Audit Committee on E-mail Consolidation
October 1, 2007

The Legislative Audit Bureau recommended in its April 2007 Review of Information Technology Projects that the Department of Administration (DOA) should report to the Joint Legislative Audit Committee by October 1, 2007, on the status of e-mail consolidation, including costs to date and the estimated completion date of the project.

The following agencies are currently on consolidated e-mail servers:

- Department of Administration
- Wisconsin Historical Society
- Department of Tourism
- Department of Natural Resources
- Department of Corrections
- Small Agency Support Initiative (SASI) (nine agencies)
- State Fair Park
- Department of Military Affairs
- Educational Communications Board
- Department of Agriculture, Trade and Consumer Protection
- Lieutenant Governor's Office
- Office of the State Treasurer
- Department of Commerce
- Office of the Commissioner of Insurance
- Governor's Office
- Challenge Academy
- Department of Revenue

These agencies use about 21,000 of a likely total consolidation of 35,000 accounts. Planning is underway with the Department of Regulation and Licensing, the Department of Financial Institutions, the Department of Health and Family Services, the Department of Workforce Development, and the Department of Transportation. E-mail consolidation will be completed in 2008 and the e-mail software used, Exchange, will be updated to the 2007 version.

The cost of e-mail consolidation to date is $9.7 million.

WISCONSIN DEPARTMENT OF
ADMINISTRATION

JIM DOYLE
GOVERNOR
MICHAEL L. MORGAN
SECRETARY
Office of the Secretary
Post Office Box 7864
Madison, WI 53707-7864
Voice (608) 266-1741
Fax (608) 267-3842

Report to the Joint Legislative Audit Committee on the Integrated Business Information System Project October 1, 2007

The Legislative Audit Bureau recommended in its April 2007 Review of Information Technology Projects that the Department of Administration (DOA) should report to the Joint Legislative Audit Committee by October 1, 2007, on the status of the Integrated Business Information System implementation, including costs to date, the project's estimated completion date, and the status of its effort to limit agency customization of the software. This paper addresses that recommendation and summarizes the state's current approach and activities for the Integrated Business Information System project.

The Integrated Business Information System project is moving forward. The major efforts to date include the definition of business requirements, orientation to the PeopleSoft software and set-up for the first implementation phase. The principal expenditures to date include the purchase of the PeopleSoft software package, hardware to support the package and staffing costs. Support for the project is very strong, due mainly to the fact that the old, inflexible administrative systems used by the state are desperately in need of replacement.

The project has been proceeding under this general plan:

1. Define the scope for an initial implementation based on business need and utility;
2. Prepare a work breakdown structure, estimates and a resource plan that support implementation of the first phase;
3. Set up an environment for the project;
4. Prepare a list of assumptions used in preparing the implementation plan;
5. Gain acceptance of the plan by the project's Executive Steering Committee; and
6. Assemble a team to achieve the plan.

Tasks 1, 2, 3, 4 and parts of 6 have been completed successfully. The Executive Steering Committee will soon meet to review the plans to date and decide whether the approach is acceptable. The existing project team has moved from their old location at the Department of Corrections to the DOA building at 101 East Wilson Street in order to allow better access to the business and technical support they need. Recruitments are underway for a project director, business analysts, PeopleSoft developers and PeopleSoft product support staff. The Request for Bids has also been reissued to update the list of qualified vendors and allow more flexibility in the services requested. In November, the project team should be ready to start the implementation phase if the planning assumptions are met.

The ability to staff the project at adequate levels with suitable skills is the largest risk to the schedule. Finding business analysts with the right level of knowledge, and who can be spared from their home agencies to work on the project, is the most difficult challenge. Finding people with PeopleSoft skills whom we can recruit is also difficult, as has been illustrated by two recruitments that did not result in hires. The recruitment shortcomings can be overcome through hiring more contractors in the shorter term, with the resulting increased pressure on the project budget.

The projected implementation date for the first phase is March 31, 2009. The cost to date for the project is approximately $10 million and the first phase is estimated to cost about $16 million, if the proposed mix of state staff versus contractors can be achieved. All business experts and team members on the project are committed to using the PeopleSoft product as it is delivered whenever possible, satisfying statutorily required modifications through "bolt-on" functions rather than package modification.

APPENDIX B

Sample of IT project dashboard report

Project Name:	**Project Contact (#):**
Project ID/Codes:	**Project Start Date:**
Project Sponsor:	**Status Prepared By:**
Project Manager:	**Date of Report:**

1. Summary

Progress Rating – Determine the status for each of the categories below based on the criteria identified on the right.

Color Change Instructions – To change the colors of the "Status" cells, select the cell or put your mouse in the cell | right-click | select "Borders and Shading ..." | go to "Shading" tab | select the desired color.

White	**Not started**; no activity.
Green	On target as planned (**WIP** = work-in-progress)
Yellow	Encountering issues (over by 2.5% to 10%)
Red	**Problems** (over by >10%) or major risks
Blue	**On Hold** – no activity; waiting.
Gray	**Done**/finished

Overall Project Categories	Status
Schedule Status (refers to target implementation date of phase or project) **Green** – Indicates that the project or phase will be completed on target or on the planned date. **Yellow** – Indicates that the project or phase may be falling behind and work needs to be done to determine if the project can recover and still complete on the scheduled date or if adjustments must be made to the schedule date. **Red** – Indicates that the project has fallen behind schedule and corrective action must be taken to make the scheduled date or the scheduled date must be changed.	Green
Deliverable (or Milestone) Status (refers to recent and next deliverables) **Green** – All deliverables for this time period have been delivered as planned and deliverables for the next period are still on track for delivery. **Yellow** – One or more deliverables for the next reporting period are behind schedule. **Red** – One or more deliverables have not been delivered as planned.	Yellow
Scope Status **Green** – We have not changed the scope in any way that will keep the implementation from meeting the objectives planned for the project. **Yellow** – The scope of the project has increased. Budget and implementation date are impacted by < 10%. Or the scope of the project has decreased but objectives are not substantially impacted. **Red** – The scope of the project is under review and changes are being requested that will mean the implementation will not meet the project objectives in some substantial way or doing them later will increase cost 10% or more above what was in the last approved CBA.	Red
Issue Status (an issue requires a decision – should have an issue paper for background, analysis & alternatives) **Green** – No issue(s) needing attention. **Yellow** – Issue(s) exist that need attention or monitoring. **Red** – Issue(s) are of major concern and delayed decisions could cause impact to project schedule, budget, staffing, or scope.	Green
Staffing Status **Green** – No staffing issues or concerns exist. **Yellow** – Staffing concerns or issues exist that need to be monitored and possible adjustments made. **Red** – Staffing concerns or issues exist and they will impact project schedule, budget, deliverables, risks, etc.	Yellow
Risk Status **Green** – No major risks have been encountered. **Yellow** – One or more risks may be surfacing and need to be monitored and contingency plans developed. **Red** – One or more risks have surfaced and will have an impact on budget, deliverables, staffing, scope, and/or schedule. Corrective action must be taken or contingency plans executed.	Green
Budget Status **Green** – Currently on target with project budget. **Yellow** – Project is over budget by 10-25%. **Red** – Project is over budget by 25% or more.	Green
Other Status (e.g., Quality): **Green** – Currently on target as planned. **Yellow** – One or more areas of the project are encountering issues that may pose problems. **Red** – One ore more areas of the project are in trouble and need to be addressed immediately.	Gray

*Provide any **overall status** comments and/or impacts that affect the project as a whole. Include any applicable accomplishments, project news, progress, major obstacles, budget/timeline changes, etc.*

Comments:

APPENDIX C

Assessing the risks of commercial off-the-shelf applications: Lessons learned from the Information Technology Resources Board—Federal Information Technology Resources Board