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☞ Details: Proposed Audit: Information Technology Systems Projects in State Agencies

(FORM UPDATED: 08/11/2010)

## WISCONSIN STATE LEGISLATURE ... PUBLIC HEARING - COMMITTEE RECORDS

### 2005-06

(session year)

### Joint

(Assembly, Senate or Joint)

### Committee on Audit...

### 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**

\* Contents organized for archiving by: Stefanie Rose (LRB) (September 2012)

<p>Cost Benefit Analysis</p>	<p>4, 6</p>	<p>X</p>	<p>The server to administrator ratio of 30 to 1 needs to be further investigated. According to Crowe, this ratio was based on information from the Meta Group. Our analysis shows that Meta suggests that a ratio of 30:1 shows that shops can make a good case for additional staff. Other analysts, such as Giga, appear to have lower ratios. Meta also indicates that the ratio can go up or down based on the reliability, security, availability, and complexity needs of a server environment. It makes sense to find out the ratio that other states are using, particularly those who have consolidated.</p> <p>The 30:1 server to staff ratio for support number does not account for the reality of supporting all current hardware, software, practices/procedures, and varying applications development suites for the first several years of the project. Though standardization could eventually be achieved, this would require agency applications to be rewritten and/or reengineered in many instances (which would cost millions of dollars). It must be logically assumed that all current IT infrastructure would need to be supported 'as is' for quite some time into the consolidation project. If staff are cut near the start like Crowe has said (years 1 and 2), there will be insufficient staff to support the state's IT infrastructure. In addition, staff who are currently working as hard as possible (typically with overtime each week) would be required to do substantially more work with fewer people. This would create a work environment that fostered serious retention problems and staff morale problems. AT DWD, we current have a server to staff ratio of approximately 15:1. This is in a centralized, highly standardized, efficient organization that has been providing quality 24*7 customer service for &gt; 10 years.</p> <p>Additionally, since Crowe is recommending a newly create service-based organization. An analysis should be done on user to sys admin ratios to more accurately reflect how many staff should be needed to provide not just quality service, but customer service. These ratios are available. Quick analysis shows numbers from Gartner (60-100:1) and DoD (103.3:1). Counting DWD only, the ratio of users to sys admins is 172:1, excluding county partners.</p> <p>From the DWD perspective, staffing numbers should be retained at their current levels to assure continuance of state IT business. DET could reduce staff at such time as actual server consolidation approaches a reality, and there is sufficient depth of coverage to allow reductions. Reductions could probably be managed as is currently done in state government, with reductions through retirement or attrition to the private sector.</p>
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General Comment	GEN		X			<p>DET has not outlined how priorities will get set for projects and problem resolution. Will the new service based organization do portfolio management? If so, this should be outlined. Will the new service organization be able to handle all initiatives required and will they be affordable? Technology infrastructure rates are more difficult than mainframe data center rates. IT strategic planning, priority setting and portfolio management activities will increase exponentially. The project plans going forward should include how project priority will be set and how knowledge transfer of the staff moving the consolidated environment will occur.</p> <p>Currently, each agency has a relationship with their divisions and is aware of their business needs. How will knowledge of each agency's business needs be transferred to the new support teams without the quality of service suffering? With reduced numbers of staff and limited resources how will we work on the consolidation, support the current systems and start up the new consolidated support system?</p>	
General Comment	GEN		X			<p>Overall comment: A baseline needs to be established from which to assess the outcome of the project. As changes are made to inventory and as comprehensive analysis is done agency by agency, the CBA should be updated with new info. At least quarterly or at major milestones the updated CBA should be published. Agencies should be given an opportunity to comment on the updates to the CBA and surveys should be conducted to monitor customer satisfaction.</p>	
General Comment	GEN		X			<p>Develop, publish, and regularly update formal risk mitigation strategy for each active project and require regular updates. Implement risk mitigation plan as early as possible.</p>	
General Comment	GEN		X			<p>HR strategy needs to be carefully worked out so that staff can be informed and aware. Also, DET needs to understand implications of various approaches to create a cost-effective, high performance technical staff. We believe that agency management should have a strong involvement in the cost, delivery, and personnel risks associated with the project.</p>	
General Comment	Gen		X			<p>It would be extremely beneficial for the taxpayers of Wisconsin if a 3<sup>rd</sup> party consultant, the LAB, or Fiscal Audit Bureau review the CBA and assumptions before proceeding with these projects. If the projects proceed based on Crowe's recommendation (Crowe has \$6.4 million to gain by proceeding and they are making the recommendation to proceed) and does not turn out to be cost beneficial this could have serious implications.</p>	
General Comment	Gen		X			<p>What approach will be used to adjust agency IT budgets and associated personnel for this consolidation? Will agencies have input on this process?</p>	

Appraisal Inventory	50	Functions			X		Most of this seems to have been copied from DWD vision – glimpse into the future. It is not what is really happening today. Also, DWD delivers UI program, doesn't just oversee it.
Appraisal Inventory	50	Customer access	3			X	Works should be Workers – but see above. This whole paragraph is future, not today.
Appraisal Inventory	52	End			X		Apps development services belongs under Organization.
Appraisal Inventory	51 & 52				X		The list of "Applications" beginning on page 51 lists only 8 applications for DWD. DWD has over 110 applications. This information was provided to Crowe.
Appraisal Inventory	55				X		These future initiatives seem to be only the ones we had in spreadsheet sent to DOA this year for IT Strategic Plan. It doesn't include initiatives underway but not yet implemented from the submission last year. Some big projects are missing – EnABLES, CARES rewrite, SUITES (on its own instead of just part of EBOD), other smaller ones.
Appraisal Inventory	Gen				X		Need glossary that describes the categories
Conceptual Design	14	2	2-5		X		How will success of foundation projects be measured and if as stated the foundation does not have to be completed for the server consolidation to proceed how success will and cost for the entire project be measured? Please indicate the measures of success/failure for these. How will they be measured, documented, and communicated? By whom and to whom?
Conceptual Design	15				X		Re: Discussion of <i>Organization</i> , related to establishing a <i>fair and equitable charge-back system</i> : A fundamental precept should be that actual costs are accurately measured and tracked. Spending on staff is by far the largest category of costs, yet DET lacks a mechanism to record how staff spends time. Without this, it is impossible to charge agencies fairly for the resources they actually use. Equally important: Lacking customer-level data on service delivery costs, decisions on backlog priority and who to serve next can't be made on a cost/benefit basis, but only on the political pressure associated with each request. Establishing and mandating the use of a staff time reporting function is therefore a prerequisite for any "fair and equitable" charge-back system.

Conceptual Design	15	5	2		X		In speaking about the changes that cannot be only cosmetic, etc., the analysis states that there is a requirement of a strong leadership at the executive level of DOA/DET. How will it be determined that the changes are not only cosmetic? What are those measures? How will the leadership roles for this be determined?	
Conceptual Design	15	Organization			X		The analysis makes the point that a quality of service culture must be created. The organization project should include defining metrics that will show when this foundation project is 'ready' enough to implement the services. Please keep in mind that quality of service does not simply mean keeping hardware and software up and running. At DWD, it involves interacting with customers and providing services based on business requirements.	
Conceptual Design	17	2 and 3	All lines		X		Based on these comments and conclusions, might it be logical to not look at starting server consolidation until the network foundation project has been completed?	
Conceptual Design	18	2	2 and 3		X		This talks about services provided for a cost to the agencies at or below what it would cost an agency to provide similar services for themselves. Please clarify how this would be measured, document and communicated.	
Conceptual Design	19				X		Network services are for the mechanical and hardware portions of the network the actual work of network management is focused mostly on user problems not hardware related. The NOC currently in place would not be anywhere near sufficient to manage the LAN and WAN infrastructure for the entire State and the counties and partners that rely on it be available.	
Conceptual Design	25	1	2		X		It is stated that the projects will have performance/success metrics defined. Please explain what this means. How are these defined vs. implemented and who is responsible for this?	

Conceptual Design	26	3	X	<p>Titles and responsibilities of the "Administrative Database Administrator" and "Development Database Administrator" are unclear. Responsibilities of each should be clarified.</p> <p>Database administration is comprised of 2 basic types of work.</p> <p>The first is <b>application database administration</b> and involves the following high level tasks:</p> <ul style="list-style-type: none"> <li>• Working directly with developers and customers to design and create database logical and physical designs</li> <li>• Definition of database objects, including schemas, tables, elements, and stored procedures - to meet business needs</li> <li>• Migration of databases across varied environments <ul style="list-style-type: none"> <li>- i.e. test, devt. training, etc.</li> </ul> </li> <li>• Exporting and /or importing database data for recovery purposes, typically excluding disaster recovery backups.</li> <li>• SQL tuning assistance and SQL problem resolution.</li> </ul> <p>The second is <b>administrative DBA</b>, Which requires far less time commitment and involves the following high level tasks:</p> <ul style="list-style-type: none"> <li>• Installation and maintenance of database systems software and related tools</li> <li>• Allocation of high level database resources that are needed within each operating system, ie. memory, buffers, etc.</li> <li>• Deployment of patches to assure software stability.</li> <li>• System level backups – for disaster recovery</li> </ul> <p>The survey has listed in the DBA an excessive number of positions for this 2<sup>nd</sup> function (see below for additional item), and it must be assumed that 'application database administration' and/or 'mainframe database administration' staffing has been mistakenly included. A large agency should never require more than 1 person for this administrative DBA work, and DWD uses .35 FTE for this.</p> <p>Definitions should be clarified, as specified above.</p>
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Conceptual Design	27				X	Network support: There is no detail on how this could be done, what the actual work involved in doing it would entail, and the cost benefit. As is, the analysis assumes that day to day management can be done from the perspective of a management console without direct contact with the people and the equipment that comprise the LAN environment. At DWD, most LAN issues are application related and need hands on people at the location to resolve.	
Conceptual Design	29	General			X	General admin support such as rate setting and billing records be in scope. Might want to specifically mention management as out of scope.	
Conceptual Design	4				X	Advisory groups do not have any ability to guarantee that input from agencies is acted on or implemented.	
Conceptual Design	5	5	3		X	Please indicate where to find, or provide details of stated "value-added services to the State".	
Conceptual Design	7	2			X	The history statement that states that the State's IT infrastructure was built piecemeal is too generalized. The IT infrastructure, including the servers and network supporting line of business applications at DWD, are not the result of a piecemeal generalized effort. The server consolidation, management processes, and design work that DWD has done are specific to the mission and the service level quality expected of applications by DWD line of business.	
Conceptual Design	7	3			X	Design objectives are stated as: balance functionality, performance, and cost. If this is to work well the design goals should be to optimize for the business needs, functionality performance and cost should follow not lead. When cost is the only factor looked at usability and function can suffer.	
Conceptual Design	11	4			X	Lab and test environments are proposed to be moved first and then if this doesn't work moved again. This would be a duplication of cost and effort. Support for test environments that meet developers needs are not likely able to be done by the large bureaucracy recommended. Assuming that the experience we have today with supporting developers using resources at DOA is not positive	
Conceptual Design	12	Second bullet			X	It's true that more hardware means more opportunities for hardware failure, but those failures have a smaller impact.	

Conceptual Design	15				X	In the organization portion there is no mention of how DOA will get agency input or how measurement and cost will be developed. There is an assumption that service-levels will be met, managed, and measured by DOA. Developing and implementing an accurate an effective chargeback system will likely introduce significant new overhead and require more people to keep it running.	
Conceptual Design	16				X	Data Centers: There is the implication here that the current DOA and agency data centers are out of date and need to be replaced anyway. This is not correct. The DWD data center is sufficient to handle the foreseeable growth for several years without a lot of new investment.	
Conceptual Design	17				X	Network: The current DWD network is designed for high availability and high bandwidth. The additional cost to implement a network for the consolidation is new overhead that will need to be paid for by the agencies.	
Conceptual Design	18				X	Goal for services to be provided at or below cost of agencies to support themselves. However, the intangibles are not accounted for nor is the overhead of communication with the agencies when the people are no longer co-located	
Conceptual Design	19				X	Responsibility of DOA to manage all aspects of user names, file names, print etc. does not adequately provide for agency and user input.	
Conceptual Design	2	1	8		X	If the Network is consolidated as recommended by Crowe, what will the additional costs be for that project? When would the Network consolidation project begin?	
Conceptual Design	2	1	4		X	What is meant by "partly" established? Please define.	
Conceptual Design	22	Picture			X	We suggest showing apps development as a separate box with arrow to line in between the help desk and business liaison lines.	
Conceptual Design	24	Last			X	Not clear how many leadership roles are needed. Are there 3 (project manager, agency coordinator, technical lead) or is agency coordinator part of technical lead? Or part of project manager role (which is what it looks like on the chart on page 25)?	
Conceptual Design	25	Ready			X	Planning should also include risk analysis and building a mitigation plan, documenting the baseline budget and schedule, defining a change control process, and creating a widely-accessible websites for project documents. It should also include defining status reporting process.	



Conceptual Design	26, 27, 28, 29				X	<p>Elements of support roles described for <i>Server Support, Application Support, Application Development, and Business Liaisons/Consultants</i> include references to project management activities. The term <i>project leadership activities</i> would better reference the intended progress towards standardizing approaches in project management. I suggest making this terminology change. To state the intent of using good project management practices, you might reference project management standards elsewhere as <i>Out of Scope</i> for the consolidation projects but required for their execution.</p> <p>The <i>Server Support</i> and <i>Application Support</i> roles have mixed responsibilities. The support of application servers like IIS and Websphere can also require line of business knowledge in order to accurately troubleshoot, setup, etc.</p> <p>Could this recommendation (the State seriously evaluate network support as a consolidated service offering) be approved through this appraisal phase, or does it need to go to the next phase for approval?</p> <p>The "No" in "No economies of scale" should be changed to "Fewer". Large agencies have already realized economies of scale by consolidating many of their servers and services.</p> <p>Project management for projects related to support activities in scope should also be in scope. For example, project management for a project to upgrade a server operating system should be in scope. Project management for an apps development project is out of scope. Wording similar to what's under application support on page 27, 4<sup>th</sup> bullet, would handle this.</p> <p>Re: Discussion related to applicability of the <i>Distributed Systems Environment Model</i> for development teams' infrastructure support:  It is encouraging to see the committee realizes that application development processes have special requirements. An improperly implemented environmental model can will incur enormous costs on teams and agencies charged with system development, as demonstrated by the 35%+ drop in productivity experienced by the Enterprise PTAWeb project team when they relocated from DWD to DET facilities.  While evaluating the Hosting and Virtualization Model is a worthwhile activity for every client agency, only the agency itself will be able to accurately assess the costs that would result from that approach. It is therefore essential that the final determination of which model to implement be made by the client agency itself.</p>
Conceptual Design	26/27				X	
Conceptual Design	3	2	1		X	
Conceptual Design	8	First bullet			X	
Conceptual Design	6, 27, 28	Scope			X	
Conceptual Design	11, 27				X	

Conceptual Design & CBA	16				X	<p>The Conceptual Design document lists the data center (or centers) as a foundation element of the envisioned design. The CBA should show an analysis of the capability of any existing state facility to house a new consolidated server center and compare it to the cost of building a new facility.</p>
Cost Benefit Analysis	9	3			X	<p>The appraisal costs of this project should be included as part of the entire project and reflected in the CBA. Agencies should be asked about the amount of time spent on this project thus far and this should also be included in the CBA.</p> <p>An additional costs/risks section should be added to the CBA to complement the additional benefits section. Things that could be added to that list include the following:</p> <ul style="list-style-type: none"> <li>• There could be a loss of ROI for IT assets purchased within the agencies that would be consolidated prior to an agency making full use of them.</li> <li>• There will be significant application versioning and compatibility issues that could cause the number of required servers and staff to be higher than originally estimated. If the new environment requires many versions of the same software or hundreds of application runtime environments consolidation may not provide the ROI that is expected.</li> <li>• Where will the software licenses for the new environment come from? Will they need to be re-purchased or transitioned from agencies to DET?</li> </ul>
Cost Benefit Analysis	10				X	<p>There are currently no costs for server hardware and associated items in the Costs section of the investment analysis. The \$742K savings is an inaccurate portrayal of the initial costs to build the consolidated server environment since servers, routers, switches, SAN ports, the SAN itself, etc. will need to be purchased in the first year. After the first year savings may start to be realized, as agencies no longer need to purchase servers since they could deploy applications in the consolidated environment.</p>
Cost Benefit Analysis	10				X	<p>The network and support tools will have maintenance associated with them and that is not reflected in the ongoing year 2, 3, etc. costs. Normal maintenance is typically 20% of the original purchase price.</p>
Cost Benefit Analysis	10				X	<p>The timing of the costs and benefits may not be accurate. Many of the costs will be incurred at the beginning of the project but the benefits will most likely not be realized in any substantial way until year 2. In essence year 2 should be treated as year 1 for benefits and would likely show about half the savings that year 3 and on would show.</p>

Cost Benefit Analysis	10					X	<p>New Data Center: Space costs for the data centers should be included in the CBA and compared to the costs needed to modify the existing DOA data center to accommodate server consolidation. If the consolidation does start to go through and agencies free up space in existing computer rooms, couldn't we save some money and use an existing site as an alternate site rather than building another building? New data center costs could also be validated with data center providers.</p>
Cost Benefit Analysis	13	Table				X	<p>Does not seem reasonable to use same annual unit cost for before and after consolidation. Example: 15 email servers remaining after consolidation will not cost \$7500 each as they may have averaged before consolidation – they're larger, faster, more fault tolerant. Also – half of the server savings almost come from email servers – this one line – but the CBA doesn't include any of the costs of email consolidation.</p>
Cost Benefit Analysis	13	Table				X	<p>Total servers are 2596 reduced to 1874 – doesn't match inventory and other parts of documents.</p>
Cost Benefit Analysis	14	6 <sup>th</sup> bullet				X	<p>Replace any with some – we're certainly not saving all the annual maintenance fees.</p>
Cost Benefit Analysis	5	1				X	<p>It appears that personnel savings are predicated on reducing staff but not managers (48 in operations, 110 in server support). If staff are reduced this substantially, what is the impact on managers? Note that the DBA count includes managers. (assuming numbers in inventory are correct).</p>
Cost Benefit Analysis	6	Model 3				X	<p>Savings is only 54 staff (110-56), not 60.</p>
Cost Benefit Analysis	6	Last				X	<p>Why are servers amortized over 3 years? DWD normally uses 5 years and in presentation to DWD ITSC on 8/5 Crowe mentioned replacing servers every 5 years.</p>
Cost Benefit Analysis	8	4	2			X	<p>If cost for a new data center is not included in the project, why would the "cost to run MADMAN to a fifth data center site" be included? This is not consistent.</p>
Cost Benefit Analysis	9	table				X	<p>The support tool implementation cost is listed as a 1.0 million, one time cost. Previous experiences installing and supporting these kinds of tools have shown that they are very expensive and cost a lot of money each year for upgrades and support, not to mention the cost of staff time to support. This cost doesn't seem to include costs for training staff to use the tools. Will training be provided?</p>
Cost Benefit Analysis	9	1	1			X	<p>Why is management included as being an organizational cost to move to a data center when they are out of scope of this project. Why wouldn't you include the operators, DBA's and support staff in these moves?</p>

Cost Benefit Analysis	9	table			X	<p>The cost benefit analysis does not account for the opportunity cost to the agencies for allocating 25 FTE to DOA/DET for the projects to implement this consolidation. Agencies will be forced to either fill behind these individuals or put up with reduced productivity due to their absence. This has a significant opportunity cost because it takes time away from agencies projects that are cost beneficial.</p>
Cost Benefit Analysis	Gen				X	<p>It is more realistic to that this project is really a \$65M dollar project rather than a \$13M project. The goal is to take the \$70M that is currently spent by state agencies in the areas considered for consolidation and through re-organization, major procurements, major hardware and software implementations and other major changes - achieve spending of \$65M annually. Consideration should also be given to the fact that it is not usual for IT projects to be off by 25 percent (conservative) which would increase the \$65M to \$80M. Is that a risk the state can afford?</p>
Cost Benefit Analysis	Gen				X	<p>Services from the technology infrastructure affect daily staff activities as well as application activities. Has DET taken into account the amount of feedback and communications necessary to work with agencies to deal with these daily activities and apps development? Agencies and DET will need to have a comprehensive plan and dedicated communications staff to accomplish this.</p>
Cost Benefit Analysis	Gen				X	<p>Has the cost benefit recognized that some of agencies' current equipment was purchased by federal funding and that these funding sources would have been reimbursed for the value of any equipment taken over through this consolidation?</p>
Cost Benefit Analysis	Gen				X	<p>CBA should include risks of consolidation as well as benefits -- or identify non-quantifiable costs as you do for savings on page 14. Things like larger impact of hardware failure, danger of 'one size fits all' service (too expensive for some folks, not good enough for others).</p>
Cost Benefit Analysis	Gen				X	<p>Crowe Chizek calls the CBA "high level kind of like a points spread", and has admitted that many assumptions were made in doing the CBA. These assumptions should be very clearly listed in the CBA so that it is clear what is and is not included. For example, it is unclear where the hardware costs of the new environment are represented.</p>
Cost Benefit Analysis	10	Table			X	<p>The server savings is confusing. It would be easier to understand if you showed new purchases of servers, and then savings or cost avoidance from not having to purchase other servers. I've been told that the hardware isn't identified as cost because it will come out of what agencies would purchase anyway (1/3 of servers replaced each year.) I know that DWD doesn't replace 1/3 of servers each year. See also comment for page 13.</p>

Cost Benefit Analysis	17	Table				X	Looks like you used the management salaries in calculating the average, but didn't count management in applying the staff reductions. If you leave out management salaries could do without the 10% discount which doesn't seem to make sense...	
Cost Benefit Analysis	2	4			X		The Crowe analysis states that at least 80% of the savings from server consolidation would come from staff cuts. One of the costs of cutting staff is that institutional knowledge of specific lines of business would be lost.	
Cost Benefit Analysis	3	3 <sup>rd</sup> under 'methods'			X		Please include the \$ amount for current server support costs or refer to page 13. This is a very important number, as it's the baseline from which we'll calculate savings in the future.	
Cost Benefit Analysis	4	3	1		X		Should the word "headcount" be replaced by "FTE equivalent"?	
Cost Benefit Analysis	4	Second bullet			X		Fewer servers could require more effort to support if they become too complex. All servers aren't equal, so it is difficult to think of servers per support person as a really good metric.	
Cost Benefit Analysis	4	Second to last			X		2400 servers mentioned here and many other places, but it doesn't match chart on page 13.	
Cost Benefit Analysis	5	Server - last paragraph			X	X	How can adding the costs of more expensive hw, memory and virtualization result in further reductions of cost? Please explain.	
Cost Benefit Analysis	5	Space			X		If we can't capture savings of no-longer-used office space, and we'll have to find new space for servers - then space costs should be included in the CBA under costs.	
Cost Benefit Analysis	6	Last	2			X	There is a typo: 2 MB of RAM for base server configurations.	
Cost Benefit Analysis	7	First bullet			X		Need some explanation for the 10% discount. Seems like salaries will increase when everyone is at enterprise level and as salaries change. Appendix mentions this is more conservative, but when same salaries are used for both costs and benefits it doesn't appear so.	
Cost Benefit Analysis	8	3					Support tool implementation. Where did the "rule of thumb of \$350" per server come from? How many hours of labor per server were allocated to remote servers and consolidated servers? When is it anticipated that the tools will be installed the statement is "post consolidation" does this mean no tools during consolidation?	
Cost Benefit Analysis	8	Support Tools	4			X	Please be consistent. This uses 1600 for servers instead of 1680.	

Cost Benefit Analysis	9	5-6, table			X	<p>The two paragraphs about 25 FTE's seem to contradict each other. If we plan to use 25 FTE first year, and in later years the people costs are calculated into the savings, then it's accurate to put them all in the first year. But then we'd expect the second year savings to be somewhat less than year 3 which might be a little less than year 4. If you expect to use 17 managers and 8 staff for server consolidation, where are the rest of the staff coming from to do the implementation? If there aren't more internal staff being used, then why do we need 17 managers? Shouldn't there also be costs included for training and testing (agency staff will need to set up testing, conduct testing, probably make application changes), for additional space costs for all years (since can't recover space currently used)?</p> <p>The cost benefit assumes \$100,000 savings per FTE eliminated. Given civil service rules on bumping, the reality is that it is the least senior person who loses their job. Considering this is the saving per FTE assumption realistic?</p> <p>Was amortization and disposal of existing equipment included in the cost benefit analysis?</p>
Cost Benefit Analysis	Gen				X	<p>Reducing excess capacity for DWD is not likely to provide much benefit to DWD but will need to increase the number of FTE's and effort to deal with the charge-back and project management and coordination needed when people are not in the same building. Will DWD be compensated for the new overhead that will come? Consensus and team building will be replaced by policies and procedures, which could reduce innovation and timely delivery of LOB systems.</p> <p>Identify alternatives to creating infrastructure in DET that provides competitive needs to customer service and cost containment. (Outsourcing the whole thing.)</p> <p>Savings shown are statewide based. Does Crowe have any information on a breakout of savings by size of agency?</p> <p>Crowe staff have made comments during the appraisal presentation about many things that the cost benefit didn't delineate details on. Is there sufficient detail to make a good decision?</p> <p>There are a couple of significant costs missing from the organizational and transition costs section. Those costs are staff training and user testing time. IT staff from the agencies or elsewhere will need to be trained on new tools and potentially a new job when they move into the consolidated environment. Also, as applications are moved to the new environment users will need to test the applications to verify they are working correctly.</p>
Cost Benefit Analysis	Gen				X	
Cost Benefit Analysis	Gen				X	
Cost Benefit Analysis	Gen				X	
Cost Benefit Analysis	Gen				X	
Cost Benefit Analysis	Gen				X	
Cost Benefit Analysis	8/9				X	

Cost Benefit Analysis	2, 10	Last, table			X	<p>The net present value calculation uses 8% - our budget and finance folks require that we use the current interest rate (~3%) for master leases which is substantially lower I believe. Please include in the assumptions why you selected 8%.</p> <p>Currently, in some agencies, server activities are funded through a program revenue appropriation that collects revenue from within the department based upon services sold to the divisions. Transferring the positions and budget authority from such an appropriation during this consolidation does not mean that the revenue can also be transferred. Additionally, any charge or allocation of server costs would have to be based upon the benefit any program or funding source receives from those services.</p>	
General Comment				X		<p>Overall comment: Please publish responses to the questions and comments and put them on the server consolidation website.</p>	
General Comment	Gen			X		<p>The items covered in these documents seem to be very high level technical views of how a consolidation would be done with critical supporting details left out. What is the organizational goal, what is the "strategic vision of the State" other than the purported savings? Non monetary items like developing a service culture, rapport with developers and line of business people that have been developed today are left out. This goodwill and institutional knowledge that has built up over many years is not accounted for. The intangibles that make or break actual day to day operations cannot be easily captured by technical details without an overall organization goal that is being attempted.</p> <p>The recommendation does not include a separate independent group to monitor service levels. It would seem that if the service levels are monitored and reported on by the same people who provide the services that a conflict of interest would be built into the organization. Oversight committees without veto power are little more than rubber stamps. When a monopoly is created without competition the likelihood of the monopoly spending money and changing for the future is remote. Locating all hardware and support in one cost pool managed by DOA leaves it open to easy manipulation as political whims are imposed on it.</p>	
General Comment	Gen			X			

General Comment	Gen			X	<p>Most of Crowe's proposal speaks to the hardware savings of server consolidation. At DWD, the majority of server administration costs are related to software (OS, tools, and applications) and not hardware. While some staff time is spent building and maintaining hardware configurations we believe it comprises up to 25% of total server administrative costs. Yes, tools can be used as they are today but the majority of server costs are still software related. It would be advisable to look into the industry averages of hardware and software costs related to servers and include this in the analysis.</p>	
General Comment	Gen			X	<p>Develop backup plan (which is possible with incremental approach).</p>	
General Comment	Gen			X	<p>Since you cannot plan a disaster, what kind of Disaster Recovery plans are in place in case of a disaster happening in the middle of the consolidation process?</p>	
General Comment	Gen			X	<p>In thinking about the server consolidation initiative, one of the biggest obstacles seems to be a cultural shift that DET will need to make from an administrative-rule-based organization to a service-customer-based organization.</p> <p>Generally speaking, Crowe's recommendation proposes that DOA/DET take positions from the various departments and incorporate them into their organization. The flip side would be to instead create a cultural change at DET by assigning people from DET to various departments depending upon their specialty, the project and the department's expertise.</p> <p>For example, instead of moving staff from various state departments to DET to accomplish the e-mail consolidation, moved staff out of DET into the departments to work on the project. In this way the staff from DET would need to adapt to new way of viewing service to customers. Thus facilitating the cultural change.</p> <p>When the consolidation plan is completed, a new service-customer based DET could be created from the departments.</p>	
General Comment	Gen			X	<p>In all of the Crowe documents, the word "virtualization" is misused. It is recommended that the word "virtualization" be changed to "centralization" in all instances.</p>	



General Comment	Gen					<p>DET desires to build a services based organization which requires listening to customers and understanding their requirements, constraints, etc. It is important for DET management to model that behavior moving forward and pay attention to their customers and to the folks that have been providing good customer services. Starting out by moving forward with a project that customers have serious concerns about continues the non-services orientation that DET knows best what customers need. It would be beneficial for the State CIO to better explain the rationale because the cost benefit has serious questions.</p>
General Comment	Gen			X		<p>Ultimately DOA/DET will have to charge some sort of rate based on services delivered. Has any analysis determined how this will impact agencies, especially based upon their size and the priorities of their lines of business?</p>
General Comment	Gen			X		<p>Please post all questions and answers in these comments to the server consolidation web site.</p>
General Comment on network consolidation, which was out-of-scope	Gen			X		<p>Network support is described as a prime candidate for consolidation and there is a claim that the existing NOC would be able to handle all State LAN support. DWD network support spends little time on hardware rather the time is spent consulting with partners, counties, application people and agency people. Significant time is spent analyzing data flows on site. A lot of time is also spent helping applications people, counties, partners, and DWD agency people understand the network performance they are getting. Tools, in general, do not show performance problems beyond the simplest of reasons. Then, people have to get involved.</p>
Network Bandwidth Gap Analysis	8	3	17	X		<p>Please provide supporting documentation for this statement: A certain amount of bandwidth increase would be necessary even in the absence of server consolidation, especially for agencies connected over T1 lines.</p>
Network Bandwidth Gap Analysis	23		14	X		<p>There are inconsistencies in data. For example, 1020 Washington Ave is not a T1 circuit, it is a CDN circuit, and therefore the Current Circuit KBps Speed is incorrect. DWD did not provide this information or the number of users information. Where was this information obtained?</p>
Network Gap Analysis	10			X		<p>There appear to be several significant details missing in the assumptions. Why was Internet and Intranet traffic not separated? Why was Internet traffic from the public not considered? Placing all traffic into one basket increases the cost and complexity of the basket and allows a single error to take it down.</p>

Network Gap Analysis	11				X	How was the traffic analyzed? The statement "Average utilization does not normally include non-working hours" does show when this was used for which circuits?	
Network Gap Analysis	5				X	Does per user bandwidth contain growth or is it today only. If not including growth the cost is understated. DWD has bandwidth for sometime into the future without incurring additional expense. BadgerNet II will significantly change the bandwidth available to remote sites, which is today a constraint. If remote servers are placed locally how are the costs to support them be calculated?	
Network Gap Analysis	21-26				X	Where did the detail for users per site come from? This information was not provided to Crowe in the survey because it was not available.	
Network Gap Analysis	6				X	What type of users are used to calculate the size of the network that an OC3 can support 1500 users may not be accurate if developers are located remote to the test equipment. DWD experience would indicate significantly lower numbers of developers could be supported over an OC3 sized circuit. Again remote servers likely cost more to administer regardless of tools used.	
Network Gap Analysis	7				X	Does the upgrade for MADMAN to support 35,000 users include counties and partners who have bandwidth needs?	
Network Gap Analysis	9				X	Additional recommendations: We believe that as part of BadgerNet II the State has looked at options to outsource MADMAN. Using thin client in place of upgrading the network will likely provide marginal service beyond some of the most basic applications. DWD does perform network application analysis when new applications are implemented and based on results recommends alternative methods based on business need vs. cost as appropriate. Point to Point wireless might be in conflict with the BadgerNet II solicitation unless provided by the selected vendor.	

Today's Date  
8/12/2004

**Agency/Committee Name  
Wisconsin Department of Tourism**

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Appraisal Inventory	138	1	3		X		Strike "to aid in the development of facilities"
Appraisal Inventory	138	2	All		X		The Major Functions section is poorly representative of the Department's functions, inappropriately ordered and poorly written.
Appraisal Inventory	138	4	1-3	X			49.45 FTE (not "roughly 70 employees). Add "approximately 45 LTEs and two Economic Development Specialists"
Appraisal Inventory	139	2	8 & 10			X	"Consumer" site (not "main" site)
Appraisal Inventory	140	2	1	X			Internal IT services are provided primarily by 2.0 FTE
Appraisal Inventory	143	2	6		X		Strike "no longer supported by Cisco"

Today's Date

**Agency/Committee Name  
Employee Trust Funds (ETF)**

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Appraisal Inventory	160	1	2			X	Insert after group health and life. Add a s to insurance. Add long-term care insurance after disability. Delete and. Delete s in programs and add a comma.
Appraisal Inventory	160	1	4			X	Delete municipal and insert local government
Appraisal Inventory	160	2	1			X	Insert and one office after divisions
Appraisal Inventory	160	3	1			X	Insert Trust Finance and after of
Appraisal Inventory	160	3	2			X	Insert Wisconsin Retirement System (WRS) and other after the
Appraisal Inventory	160	3	4			X	Add: The division handles all accounting and financial transactions and reporting and maintains the unfunded liabilities for all employers in the WRS.
Appraisal Inventory	160	5	4			X	Delete Purchasing Alliance and insert Coverage Program
Appraisal Inventory	160	7	3			X	Delete last sentence. Insert The division is responsible for answering all questions from participants.

Appraisal Inventory	160	New bullet					X	Add The Office of Strategic Services is responsible for managing the department's biennial and operating budget, legislative and federal relations, communications, deferred compensation, and strategic and workforce planning. insert and executive assistant after deputy
Appraisal Inventory	161	1	1				X	Under the Network Heading 5 <sup>th</sup> bullet, replace T1's with DS3. Add that we also support our own local firewall system on-site. Delete model
Appraisal Inventory	161	3	5				X	The 4 <sup>th</sup> bullet under server Consolidation Factors / Constraints delete no insert a. The department does operate a call center with the IVR.
Appraisal Inventory	161	3	Add				X	Add - Data Center Size - 485 Sq. ft.
Appraisal Inventory	162	1	1				X	Change the Server sub categories for Environment-Testing and Environment-Development to one Test/Development line with 2 servers. We have a total of two servers for that count not 4. Under the Unix and AIX lines change the count from 5 to 4.
Appraisal Inventory	162	1	4				X	Change the NT Domain count from 1 to 0.
Appraisal Inventory	162	Chart	Space				X	Change the count for File and Print Services from 2 to 1. Change Server-based VPN from 0 to 1.
Appraisal Inventory	162	Chart	Network Devices Servers				X	Change MS SQL Server count from 1 to 2 Change Databases from 0 to 2.
Appraisal Inventory	162	Chart	Servers				X	Change DB2 Count from 1 to 4. We have databases in D00D, D00A, D00S, D40P. Additional Note: We do use Content Manager in production, Development, and Acceptance.
Appraisal Inventory	163	Chart	Domain Services				X	
Appraisal Inventory	163	Chart	Network services		F&P Services		X	
Appraisal Inventory	163	Chart	Access Infra.		VPN		X	
Appraisal Inventory	163	Chart	Applications		MS SQL		X	
Appraisal Inventory	163	Chart	Applications		Databases		X	
Appraisal Inventory	164	Chart	Applications				X	

Appraisal Inventory	164	Chart	Applications	Databases		X	Add the following for Databases. 29 databases in D40P 68 databases in D00D 2 databases in D00A 3 databases in D00S
Appraisal Inventory	164	Chart	DMS	Other		X	Change Document Management System – Other from 0 to 1 with a Comment of Content Manger on ZIOS.
Appraisal Inventory	165	Chart	ETF	DBA		X	Change count for Full Time Emp. From 4 to 3 and Totals from 4 to 3.
Appraisal Inventory	165	Chart	ETF	Security		X	Please change count for Security Full Time Emp. From 0 to 1 and Totals from 0 to 1.
Appraisal Inventory	165	Chart	ETF	Applications Support		X	Add 2.0 FTE under full-time cont. and delete 35.00 under part-time cont.
Appraisal Inventory	Gen.					X	Add a note that all ETF's DBA's provide the tasks associated with both the Administrative and Development DBA tasks. The only service they do not provide is the system level tasks that are provided by DET.
Network Bandwidth Gap Analysis	Page 10	10			X		Disaster recovery is a concern and should be fully analyzed.
Network Bandwidth Gap Analysis	Chart Page 33		ETF			X	Change Current Circuit KBps Speed for Badger Rd. to DS3 and 902 Ann St. to 11Mbs. We believe at a minimum if our File and Print Server were to be moved, we would need LAN speeds to that device (100Mbs) and close to that for our e-mail server.
Conceptual Design	Gen.				X		The importance of customer focused service, sufficient staffing with the appropriate skill sets, performance including service level agreements, as well as, a reasonable price for the services are essential for the success of this project.

Agency/Committee Name State of WI Investment Board							
Document Title	Page No.	Para. No.	Line No.	Category (check one)		Comments	
				Critical	Subst.	Admin.	
Appraisal Review Reference	139-143			X			<p><b>Concerns expressed by SWIB Senior Management:</b></p> <ul style="list-style-type: none"> <li>• SWIB has a fiduciary responsibility that is unique in state government-- the investment of \$70 billion in trust fund assets. SWIB competes in a global business environment that requires the ability to quickly respond to changing technology and conditions in the investment industry.</li> <li>• Moving SWIB servers would create unnecessary, and potentially costly, business risks: <ul style="list-style-type: none"> <li>○ Systems reliability is critical in an investment environment. Periods in which systems are not available or fully functioning can cost the trust funds millions of dollars associated with delayed investment decisions or failed trades. This could far exceed any potential savings associated with consolidation.</li> <li>○ SWIB operates in financial markets that have been a target for terrorists and other disruptive activities. To safeguard assets, SWIB must maintain a high level of security in all areas, including communication methods, applications, data communication and storage. Moving SWIB's servers to third location may pose an added security risk to our business activities and assets under management.</li> <li>○ Moving servers to a third location would increase the point of risk in SWIB's technical infrastructure because SWIB's systems would have to run through a more complex wide area network, instead of the current local area network.</li> <li>○ SWIB has a sophisticated and well-tested business resumption plan that involves many servers, replications with external parties and a co-location site. Movement of servers will add risk to SWIB's current plan by changing replication processes and locations. SWIB must be able to control its ability to manage assets in the event of a disaster.</li> </ul> </li> <li>• SWIB's investment activities rely heavily on technology. Effective support of this technology requires specialized business knowledge about how the markets work and the complex relationships among the numerous parties that are involved in the execution of investment transactions.</li> <li>• Any potential cost savings from server consolidation would have to be returned to the trust funds and could not be used for other state purposes. SWIB servers were purchased with trust fund monies and, consequently, there is a strong legal argument that they can not used to support other agencies or state enterprise programs.</li> </ul>

	GEN					<ul style="list-style-type: none"> <li>The current plan would move most of SWIB's of business and database servers. These servers include applications which support our research, trading, accounting and trade settlement activities. These servers cannot be combined with other servers and applications because of product vendor support requirements. While these servers may be physically maintained remotely, these applications are accessed daily by network staff to correct problems, isolate data issues and provide updates. On some occasions, server specifications (capacity, upgrades, etc) may change on short notice, requiring physical access or updates to servers in a short timeline. As a result, we question the value in moving them to another location given the additional risk.</li> <li>SWIB is in the midst of two critical projects involving the trading of securities and central data support for investment decisions, performance monitoring and compliance activities. These projects will consume existing staff resources for the foreseeable future. The dislocation of the servers that support these projects would divert staff attention and resources and could pose a significant risk to project success.</li> </ul>	
	GEN	x				<p>Info Tech and Badgemet provides a wealth of knowledge and examples that is not leveraged as much as could be. Explicit examples will be given below. These examples should be explicitly analyzed and addressed, minimally to give agencies assurances that the same mistakes will not be made.</p>	

A central theme is to create "best practices" facilities with the intent of increasing the numbers of servers that can be supported per support staff from the current state average of 22 to 30. However your "foundations" does not cover/list the following six best practice environments:

- Development
- System/Unit Testing
- User Acceptance Testing
- Staging / QA
- Production
- Disaster Recovery

Each environment has a duplicative hardware requirement that can significantly increase the numbers of servers being managed depending on whether there are plans to provide these environments. Some issues:

- Do the best practices survey numbers include these environments? SWIB did not include in the appraisal phase "development and system/unit testing" servers located in development staff work spaces. SWIB considers keeping these servers near the development staff as critical to reducing "time to market", i.e. getting applications to the users as quickly as possible. If other agencies left out these servers, further evaluation may already improve the state average to the target 30. Also, not including all of these environments in the best practice numbers (which is closer to the majority of agencies), could reduce the target to the current state average of 22.

- If this project does not include some of these environments, what does this mean to state agencies that do have some? Specifically, SWIB has a co-location Disaster Recovery facility that duplicates the server hardware for critical systems. Creating a Disaster Recovery co-location site is not included in the cost expense calculations, but is included in the cost savings (i.e. the co-location servers add to the reduced server costs, but the co-location service itself is not being offered).

- Creating these environments where they do not exist now will increase costs. At Info Tech, adding more and more testing environments became mandatory because Info Tech was such a big single point of computer and network failure. When even a small agency change could impact all state agencies, Info Tech was forced to implement more and more best practices testing environments. The costs to manage and implement all of these additional environments had significant costs. These costs should be listed and included in the ROI calculation where they are a direct necessity due to increased availability exposures of a consolidated center. This should also include added administration costs to manage code transitions between the environments. Most small and medium size agencies which did not have these additional environments should expect to see extra development costs.

- Are the larger state agencies closer to the target numbers and the best practices environments? Small to medium agencies will skew these numbers incorrectly and if included should be weighted differently to account for fractions of a support position that is supplied. i.e., a partial position from a small to medium agency probably has other duties thereby making the elimination of the



<p>Cost/Benefit Analysis</p>	<p>6,7</p>	<p>X</p>		<p>The cost analysis assumes that the average support staff salary for the consolidated support staff remains unchanged from the state average gathered in the surveys. A 20% increase in average salaries will mathematically offset a 20% reduction of staff. Since personnel savings represents 80% of the cost savings, this is an important issue to address.</p> <p>Info Tech salaries were far above the averages. A comment on page 14 states that "A higher level of technical expertise will be achieved ...". Info Tech had the same objective. The higher average salaries resulted from:</p> <ol style="list-style-type: none"> <li>1. Info Tech only wanted the best people. These people typically were at the highest end of the salary ranges. The consolidated center will not want to hire "deadwood", so this issue all by itself will significantly decrease projected savings. Also, the best people could come from management and technical support areas outside of the targeted support staff group from which the salary survey numbers were gathered thereby decreasing the savings even more.</li> <li>2. If exceptionally skilled people could not be found within the state, they were hired from the outside (there are plenty of state people that achieved both career and salary growth by going private who applied for the Info Tech positions).</li> <li>3. To get people to apply, 10-20% salary incentives were offered.</li> <li>4. To succeed in this more complicated environment, the highest skilled people available need to be recruited. It will be a challenge to keep average salaries stable while trying to get the best people.</li> </ol> <p>If statistics can be found, you may find that Info Tech salaries were significantly above the average salaries of support staff that were replaced.</p> <p>Another issue is that management costs are not included (explicitly). The combination of management and technical support salaries can easily displaced all the savings from staff reductions.</p>
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<p>Cost/Benefit Analysis</p>	<p>9-11</p>	<p>X</p>	<p>It looks like the project management, administration, etc. expenses will total \$6.2 million over 3 years. First, it is not clear where these expenses are coming from (DOA, Crowe, other?). It is important to know what the consultants are costing. At Info Tech, consultant expenses were high, but not only did they not go away, they increased over time. This was due to a variety of factors:</p> <ol style="list-style-type: none"> <li>1. While the consolidated environment is simpler than the sum of all the parts, it is significantly more complex than any single part. The SWIB computer room that support 100 users is simpler than the consolidated computer room that supports 35,000 users. While project issues in SWIB's environment could be addressed with internal staff, the same issues when applied to the consolidated environment could require consultants. That happened with SWIB's project to have two ISP's, one primary, one for backup. When SWIB dealt with Berbee (one of the ISP's) as a single client, there were no issues. When SWIB dealt with Badgernet, there were enterprise issues impacting many other agencies. It took over a year plus some outside CISCO consulting to resolve.</li> <li>2. It was very difficult to articulate clear success factors at Info Tech. Info Tech could do a project where one agency was very happy, while another agency was mad as could be. As noted in the Conceptual Design, "the State of Wisconsin does not fit a one size fits all mold". Info Tech managers were forced into making inconsistent and unpredictable decisions, technical staff never knew how successful they ever were. Staff quit Info Tech, job applicants made exorbitant salary demands. It became easier, and often there was no other alternative, to hire consultants to fill empty position responsibilities for long periods of time.</li> <li>3. Often technical staff would suggest one size fits all solutions in order to control costs and improve efficiencies. This did not always go over well, so outside consultants would be brought in to help resolve.</li> <li>4. Info Tech, by law, had a FTE cap. Hiring consultants was a way around that.</li> </ol> <p>It is important to note ahead of time, strategies to gradually decrease dependencies on consultants. Because of the potential for a huge negative return on investment, these issues should be analyzed and addressed.</p>	
<p>Cost/Benefit Analysis</p>	<p>9-11</p>	<p>X</p>	<p>Projected costs are \$6.2 million over 3 years for project management and oversight, plus \$2.4 million for 25 FTE's from the agencies. <b>How were these costs computed?</b> There is no detail as to how these costs were computed. For instance, having to convert an application vs. just moving an application can have cost differences of ten times or more. But there is none of that kind of analysis listed.</p>	

Cos/Benefit Analysis	10,11	X				There are some significant cost savings due to being able to split the DBA administrative and development support positions. These are inseparable job duties in most, if not all agencies. This has not happened at Info Tech for mainframe DBA's. Agencies will not be able to give up any of their DBA positions in this way. This cost savings should be totally eliminated from the ROI calculation.
Conceptual Design	GEN	X				Were alternative strategies researched? Alternative strategies are not listed. The reports would have more credibility if we knew that other options were looked at. Here are some suggestions: 1. No consideration has been given to grid computing. We should consider clusters of servers, each cluster representing one service to be deployed at the most suitable location. Email services at UW, application hosting services at DOT, disaster recovery at DOC, etc. Looked at this way, we may even want to outsource individual services. With competitors like Google and Yahoo mail, email actually seems like a good candidate to outsource.

Today's Date  
8/11/2004

Agency/Committee Name  
**Department of Public Instruction (DPI)**

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Appraisal Inventory v 1.03	126	Organization			X		In the presentation at DWD, Crowe indicated that the # of users for each agency was based only on # of state employees. The # of users does not reflect multiple users at schools across the state (over 2000 schools). It is likely that the limited definition of users does not accurately reflect DPI's business needs.
Appraisal Inventory v 1.03	126	Applications				X	Mission critical applications are not just used by specific groups within the agency but also by schools and districts throughout the state.
Appraisal Inventory v 1.03	127	Server, Database...	Bullet 3			X	DPI uses classic ASP for most web application. The move to Java and .Net development is recent and just beginning.
Appraisal Inventory v 1.03	130	Applications	Homegrown			X	DPI has several (20+) homegrown ASP, Excel and C++ applications.
Appraisal Inventory v 1.03	131	Support Roles Table				X	App Dev/SDLC section: lists no contracted employees (we have 2 contractors working with FNS applications and one with WSL/Special Education). There are 5-6 contractors working within our program areas or major projects at any time.

Appraisal Review Reference	78	Application Servers	Middleware Servers	X		DPI currently has several Websphere application engine servers and also an active directory development server.
Server Consolidation FAQs	Ques #2		X			One of the "best practices" should be to find out what this "product" will cost before buying it. Or is there to be a go/no go decision made later based on more concrete facts?
Conceptual Design	Gen.		X			Security needs, security and account management and impacts on authentication directories do not seem to be included in any foundation area. Have the costs, needs and work involved with these considered and included?
Conceptual Design	Gen.		X			One of the foundation projects is to substantially change DET to customer-focused service organization. Will other State agencies have input and say in how this is managed and what the eventual organization looks like?
Conceptual Design	Gen.		X			The impression most state staff have of this consolidation is that it is a decision already made and there has been little detail provided, communication has been superficial and feedback/involvement from the agencies will be ignored unless it is to the benefit of DOA/DET or includes monetary/staff commitment. How will communication and involvement be changed to bring agencies into more of a decision-making and fully aware roll in the enterprise process and projects?
Conceptual Design	Gen.		X			Since DPI are not a cabinet agency, consolidation is perhaps riskier for us than most other agencies. By housing our data at DOA/DET where all security is also housed, we are essentially giving up the protection of that data by those who are committed to our mission.
Conceptual Design	Gen.		X			Since all agencies are subject to budget crunches and cuts, what's to keep DOA/DET from cutting services and personnel during those times? At least if the services and staff are housed in individual agencies, the agencies have a say as to what is cut and what isn't.
Conceptual Design	Gen.		X			DPI has a small and very talented IT staff. It is highly unlikely that we will get the same level of service from DOA/DET that we enjoy now and, what we do get, will likely cost more. It's likely we will have a cut in service to our employees, management and our customers. Is DOA/DET willing to provide any assurance or guarantees (maybe including monetary compensation or consideration) if this effort results in decreased service levels or excessive increased costs?

Cost -Benefit Analysis/conceptual Design	Gen.			X			<p>These reports have no analysis of level of support for different agencies, turn around times on support issues, and affect on agency business. The analysis is only on a pure technical &amp; accounting level. The conceptual design discusses building an effective "Service Organization" but does not address the nature and requirements of service except on a technical level. I believe this is an oversight. Given the amount of support needed to implement a project like WSLs or ISES (WAMS and non-WAMS related) and given our experiences having to go through another agency for WAMS support, this is a big concern.</p> <p>Total Cost does not add up (2.7 M x2) + 800K +2.4M + 250K == 8.85 M</p>	
Cost-Benefit Analysis	Gen.	Estimated costs-Organization & Transition		X			<p>Is there any consideration of costs to agencies and how that will change – Cost Benefit Analysis is only on a state-wide scale. What affect on individual agencies – especially in software licensing (with DPI's educational discounts)</p> <p>Data center and other infrastructure costs have not been included in the projected costs for the server consolidation. Understanding that these are ongoing and required projects even if no consolidation occurs, there are obviously going to be increased costs for facilities, bandwidth and staff to incorporate the needs of the server consolidation. Shouldn't part of these increased costs be included in the projected costs for the server consolidation project?</p>	
Cost/Benefit Analysis	Gen.			X			<p>The cost projections are from a State-wide view. At what point in the consolidation projects will the true costs to individual agencies be determined or estimated? When will service pricing structures be set and will State agencies outside of DOA/DET have input into the rate setting process?</p> <p>DPI can take advantage of "Educational Discounts" for hardware, software, and consulting service purchases. These often offer extremely substantial licensing and purchase cost savings. What consideration will there be in our service costs, license options and rates to recognize this important and very extensive advantage if our server/services are consolidated at DOA/DET?</p>	

Document Title	Page No.	Para. No.	Line No.	Category (check one)		Comments
				Critical	Subst. Admin.	
All	Gen			X		Who are the primary authors? Normally the name and credentials of lead project members are included in design documents. The exclusion of the lead authors suggests a lack of accountability for the information presented in each document. The level of detail, especially the support of conclusions and recommendations, and the omissions of costs is not commensurate with a 13+ million dollar taxpayer supported project. Since the project is being recommended based on a projected cost savings to the state as a whole, care should be taken to make sure that costs are estimated as accurately as possible and this is not the case (examples follow).
All	Gen			X		A substantive discussion of the proposed security model or models is missing from both the conceptual design and cost analysis documents. Security has been identified as a critical issue since many agencies generate and house information that is deemed private on some level (e.g. HIPAA, juvenile information, justice information, etc.). Meeting differing security requirements will incur costs that have not been outlined or included in the cost document. The fact that the documents are 'high level' should not be accepted as an excuse to omit estimates of known costs in order to skew the results of the cost analysis.
Conceptual Design & Cost Benefit Analysis	Gen			X		Network Upgrade costs only consider the MadMAN network (Madison metro area only). The document states that additional network upgrade costs are not included. Why? Many agencies have offices throughout the State which means they may incur costs beyond those presented in the cost analysis document. For example, since the majority of our agency offices lie outside Madison and we currently operate on roughly one third the minimum bandwidth recommended by the consultant, network upgrade costs for our agency will be substantial and recurring.
Bandwidth Analysis & Cost Benefit Analysis	Gen			X		Bandwidth values are incorrect. The consultant assumes all T1 lines to be exclusive and ignores or is unaware that many agencies share T1 lines. The consultant also assumes that service is symmetrical, which is incorrect. The consultant further assumes that our VPN sites, which are a combination of DSL and cable modem connections behave like T1s. These incorrect assumptions combined with the fact that the Cost Analysis document does not consider non-MadMAN network upgrades result in potentially large network upgrade costs being hidden from the bottom line in the consolidation budget.

Conceptual Design & FAQs	Gen				X				<p>The document points out that DOAIDET currently lacks key foundational components (service-oriented organization; network capacity; a data center strategy to provide safe, secure, and consistent service delivery) necessary to meet the basic requirements of the role DOAIDET intends to play in the proposed project. When the consultant was asked whether they considered the possibility of another entity providing data center services at the recent ITDC meeting, the response was they had not because doing so was not a part of their scope of services. What is the rationale for limiting the consultants ability to evaluate all available options for the provision of service when doing so results in limiting their ability to recommend the most cost effective and likely-to-succeed option?</p> <p>What is the Remote Implementation? Is this the secondary or recovery datacenter site, or will some mailboxes be hosted outside the datacenter?</p> <p>What will be the cost of backups, antivirus, antispam and upgrades for the OCS solution? Why is this not included in the table?</p> <p>For the current Exchange email system, hardware replacement cost appears to be counted twice: once under Annual Support and again as a separate line.</p> <p>What will be the impact on the OCS training budget if one or both of the highly trained staff find other employment? Would the \$41,500 training need to be repeated?</p> <p>Does another cost analysis exist that compares apples to apples? This comparison is of marginal value at best, and it is so general that it could potentially be misleading as to the actual cost of implementation and subsequent operation of the proposed OCS system.</p> <p>What are the TUSC Managed Services? What is comparable in the current email system?</p> <p>What will be the cost of directory and security services for the OCS system? How will these be implemented?</p> <p>What is included in the Annual Maintenance line item for the OCS system? Does this include support of the operating system on which OCS is installed?</p> <p>What will be the cost of administering user accounts and mailboxes for the OCS solution? I assume these costs are included in the current Exchange system under the Annual Support line item.</p>
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									
Email Consolidation Cost Benefit Analysis									

Cost Benefit Analysis	10								The Network Cost investment is based only on MadMAN. The cost to increase bandwidth to sites not servicable by MadMAN is not included. The WAN links to many sites will not meet the bandwidth requirements for consolidation. A preliminary calculation for this agency indicates a \$500,000+ recurring annual cost increase in WAN bandwidth. Other agencies will also have increased costs.
Cost Benefit Analysis	5						X		This sentence is unclear. How does adding more expensive hardware, memory, and virtualization software to a server reduce the overall cost of the server?
Email Consolidation Cost Benefit Analysis								X	It has been stated that the OCS bid was much lower than expected and much lower than other bids. What additional validation was done to qualify the OCS bid in light of the fact that it was much lower than expected. Excessively low bids should be subject to additional review or disqualified. What were the other bid results?

Today's Date  
07/11/2004

Agency/Committee Name  
**Department of Revenue (DOR)**

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Conceptual Design	1	1	2	X			The first and primary goal for this architecture should be to rationalize service to internal and external customers. The costs and benefits as defined are too preliminary upon which to base the project, and the ROI as stated is unlikely to be achieved within the timeframe. Failure to meet the stated goal could cause unnecessary criticism for the program.
		2	2	x			Hosting common applications is the safest, least risk approach and we believe that consolidating all shared applications should be accomplished before any agency-specific applications are moved. The migration of agency-specific applications should be planned by the agencies, within an agreed timeframe. This approach will likely create an agreeable comprehensive implementation plan more quickly than having people outside the agency needing to become familiar with the agency operation and then putting together a plan that works. We should not commit to any specific ROI until the comprehensive analysis is completed and implementation plans are accepted.
		2	5	X			We suggest not using co-location even as a transitional step. This has no benefit but some risk to service, so it is better to assure the new environment is ready for the application and just move it, even if it takes longer. All new applications should be implemented into production in the consolidated environment from the date that it is serviceable.



									<p>We suggest that server support be the lone first target of consolidation, being implemented fully before administrative dba or operations support are consolidated. This will reduce risk to service and timeline. Given the nature of some applications, specific application knowledge is required for some administrative dba and operations functions and this needs to be analyzed more. Reducing the goals and simplifying the initial implementation will reduce risk to services and timeframe.</p>
									<p>Support of installed and running applications is difficult to separate from application development, and is better left out of the scope of this project. Keeping this project clean and as simple as possible will increase the likelihood of success.</p>
									<p>We think that hosting and virtualization should be the only model adopted. Given the desired timeframe, applications that are specific to an agency should be left on agency hardware supported by agency staff until all common functions are in place.</p>
									<p>The overhead of VMware, clustering and merging applications into a shared environment needs to be factored more heavily into the cost when compared with installing separate servers. The amount of virtualization that can be practically realized may be over-estimated.</p>
									<p>The time allowed to implement a new organization structure and instill a customer service oriented culture is under-estimated but is critical to project success. A culture takes time to instill, and the new organization being pulled together should be given every opportunity to succeed.</p>
									<p>The bandwidth required should be estimated higher given the industry expectations of growth in video and audio clip and graphic usage.</p>
									<p>We believe that consolidating HELP desk and desk-side support should always be an optional service offering. Any dollar saving projected in this area is risky and a reduction in service is high risk. Not a good candidate for scope expansion.</p>
									<p>The bullet on dollar savings should be struck as a goal since the realization is too risky within the timeframe projected.</p>
									<p>As previously mentioned, we believe co-location should be removed since it will achieve little other than increased risks.</p>
									<p>The economy of specialized service and customer support for agency-specific applications needs to be carefully weighed in rationalization efforts, since they can outweigh economies of scale. This factor needs to be recognized more in the report.</p>
									<p>Economy of scale can easily be overtaken by the complexities of managing the more complex environment and providing a level of service required by this new environment. Agencies will likely demand some significant guarantees of service through SLAs that cost more than the service level that currently exists, which will drive up the cost. Better service can be achieved, but lower cost shouldn't be projected. Agencies may be more willing to operate 'on-the-cheap' when it is their own operation, but demand more guarantees of service when buying the service externally, which will increase costs.</p>

11	1	1	1	X		It is unlikely that the benefit of common (consolidated) support of distributed systems will outweigh the cost, so we think that applications should be in or out.
	4	1	1	X		The role of development labs in today's more agile development methodologies should be carefully considered. Adding layers of bureaucracy into the mix will likely be a cost rather than a benefit which can be avoided; production applications need the service level and can benefit more from economies of scale.
12	4	9	9	X		Applications can not be protected from most hardware failures, and a highly shared environment will increase the cost of a single failure. The costs of reducing this risk can become very high per percentage point as it increases. This factor may reduce some economies of scale projected.
	4	17	17	X		Provisioning servers in software can be much more effort than provisioning in hardware. The effort required to assure that even similar applications reside on the same server peacefully can be large, which has contributed to the number of servers in use in the industry. The balance between software and hardware boundaries is complex and should not be underestimated in this effort. In many cases hardware costs are not high compared to people costs.
13	3	7	7	X		Shared storage has its own overhead cost that results from factoring in under-estimates and additional workspace needed for shared applications. Realizing large savings in disk will take time and effort, so the short term cost benefit should be removed.
14	3	2	2	X		The success of a customer-focused support organization can be severely impacted by proximity to customers and perceived access. The first step of the organization development should focus on the functions required to support hosting the servers and serving agency system staff, and move beyond that to more application oriented services only as performance measures indicate. This change in orientation should be given the time that it needs in order to reduce risk.
15	2	3	3	X		A definition of consequence for failing to meet service level agreements should be defined in order to give the agreements meaning.
	4	1	1	X		The data centers need to be well equipped in order to provide the service that will be demanded, and cost efficiencies should not be allowed to interfere with creating the capability. Another reason that cost/benefit should not be a main factor for this project.
	4	11	11	R		This mention of Project Management and Project Delivery needs to be put in context.
18	2	2	2	X		Agreed that 'cost at what it would cost them' is an acceptable outcome for the project, but this seems to contradict the main theme of the paper and should be explained.
	9	2	2	X		Agencies can't pay only for storage used, they will also need to pay for some part of the free-space that will be required in a shared environment.
19	6	1	1	X		The use of a centralized HELP desk should always be an optional service, it is a high risk little return investment.

20	1	3	X						The proposal for centralized deskside support, with some of whom may reside locally within agencies' seems illogical. As an optional service, similar to the HELP desk, it likely makes sense to some agencies.
21	6	3	R						Which domain is referred?
22	3	2	X						Given the role of business in scheduling background batch work and in initiating software migration in today's applications it is impractical to say 'long term, these roles and functions should exist only in DOA/DET'. The lines among operations, application support, application development and HELP desk functions for some applications make it more realistic to say that 'long term, these roles and functions that are not agency specific should exist only in DOA/DET'.
23	6	2	X						Again, the transitional stage should be removed. The HR and budget issues should be resolved, a plan made to reach the final outcome, and then the plan should be executed with no collocation or remote control steps. The proposed approach will increase the risk and extend the risk period.
26	3	2	X						Performance tuning needs to be a shared function.
27	5	1	X						Running background batch processes for some applications requires people very familiar with the business operation.
Gen			X						Security does not receive much attention, yet it is critical to DOR and other agencies. Our federal tax data and Lottery data have security requirements dictated outside of our agency.
2	3	1	X						The cost and benefit estimates are too tenuous to be used for justification for this project. The likelihood that the benefits will be as high as projected, the costs as low, or the benefits realized in the projected timeframe is very low. The project should be based on service rationalization among agencies.
4	2	4	X						The server environment will be more complex rather than simpler. Load balancing and clustering required to share servers makes the environment more complex than several simpler servers and will likely not lead to less staff.
	2	13	X						Establishing a common server platform across agencies will take some time due to the current lack of standards. The projection of benefits does not seem to take this time required into consideration.
	3	1	X						While most of the bulleted points are potential benefits, the cost benefit does not seem to allow enough time for them to be realized.
	6	1	X						Recent Gartner reports do not indicate a high probability of saving dollars in outsourcing server operation. This supports our suggestion that this project not be promoted based on unlikely cost savings in a short timeframe.
5	1	1	X						While economies of scale can likely create some savings in operations and administrative DBA support, knowledge transfer will require some time for realization.

		5	1	x					The server savings will require rationalization of operations in order to be realized. This will require more time than this study indicates.
6		2		X					The savings in staff projected is too optimistic. Rationalization will take more time than projected and will likely not be taken as far. The amount of time that is spent rationalizing older applications needs to be weighed against the cost of maintaining a separate environment while replacement/update options are considered. The likely outcome will be a requirement for more time and less total saving.
9		8	9	X					The rationalization of applications will take more time and more effort than projected; the \$2.4 million does not seem adequate for the environmental and application testing and modification required.
10		1	1	X					Estimating savings in the first year put the project into an untenable risk situation. Any savings projected should start in year 3 and the premise for the project should not be based on these savings unless more compelling evidence of their likelihood is established. Service and future savings are a better basis for the project and will remove it from being a high risk endeavor. If agencies take budget cuts based on savings projected within this timeframe they will be placing that part of their budget at very high risk. They will need to cut other programs if the cost saving within the timeframe is not achieved, and the negative reaction could place the entire project at risk.
Network paper	Gen			X					Network detail appendix C ; the Rice Lake office is closed, Kenosha is a T1 connection rather than VPN or dial access.
Other	Gen			X					The rate structure needs to be addressed soon to be able to establish agency budgets.
Appraisal analysis reference	Gen			X					The detailed inventory has errors introduced that were not in the initial inventory.

**Department of Military Affairs (DMA)**

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Appraisal Inventory, Major Functions	119	Three	~10		X		The section titled "Major Functions" speaks only to WEM functions. The section title should reflect that. Other internal functions of DMA are not captured in this document.
Appraisal Inventory, Organization	119	Five	~30		X		Installations management is expanding to other locations which will eventually include: Green Bay, Appleton, Chippewa Falls, Fort McCoy. These locations will access the DMA State network through the federal network by a DMZ. This could not be accomplished with our server resources outside the reach of the federal network.
Appraisal Inventory, Network	120	Four	~40		X		It should also be noted that many remote users are allowed to access the "state" portion of the network from the federal network. This is accomplished by a domain trust and federal proxy and PIX settings.
Appraisal Inventory, Storage	122	N/A	~26		X		We utilize a data back-up server of 1.2 TB.
Appraisal Inventory, Security	123	N/A	~37, 38		X		We have a PIX firewall and federal intrusion detection system that protect our network.
Appraisal Inventory, Support Roles	124	N/A	N/A		X		It should be noted that all roles listed are provide by 2.5 FTE IT staff.
Cost Benefit Analysis	Varied	N/A	N/A		X		The estimates used for personnel cost savings are drastically exaggerated compared to actual dollars spent at our agency (even at the new 50.43 fringe mark-up). It should also be noted that no differentiation is made between GPR dollars saved (the focus of the effort) and other dollars spent. In many instances spending less GPR dollars will reduce our federal dollars on more than a 1:1 ratio.

Today's Date  
8/12/2004

Agency/Committee Name  
**Department of Justice (DOJ)**

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
General Comments				X			Security and availability issues seem to be given little concern. Consolidation and virtualization increase the risks related to security and availability. More people will have access, both direct and remote to sensitive data. There will be an increased number of "single points of failure". Without taking into account the steps necessary to mitigate these increased risks, the cost picture is incomplete.
				X			There seems to be no consideration for a phased approach, where the state could reap the benefits from situational opportunities for consolidation, and reinvest them as we gain experience and become more proficient in the skills required for success in this effort. A phased approach would also provide an opportunity to defer or reduce the investment required to upgrade MadMAN, and may provide additional savings opportunities by utilizing the new Wisconsin Converged Network.
				X			There is no mention of specific agency costs. While benefits to the state are what counts, there may be increased costs for some agencies and decreased costs for others. If the intent is to help agencies with increased costs by tapping into overall savings, those methods should be identified up front. The state's current budget process does not handle "subsidies" of this nature very well and the past and current subsidization process that occurs within DET causes concern at both the state and federal level.
				X			Leaving out the costs and benefits of finding, constructing, and occupying a new data center is risky. In addition, the costs associated with reusing the space vacated in existing facilities should not be ignored.

					X		<p>The state should ask Crowe Chizek to provide specific results from projects they have managed with the same scope as ours in order make more educated decision on an effort this large and risky. An alternative might be to have an organization similar to LAB review the cost benefit analysis.</p>
Cost Benefit Analysis	2,6	X					<p>A decision to proceed seems to be based primarily on industry average figures related to the number of servers that can be supported by a single person, in this case 30. The state apparently is already fairly close, coming in on average, at 22. Industry averages should include complex, diverse environments, as well as simple, homogeneous environments. The former would have lower ratios and the later would have higher ratios. The state, as a whole represents a very complex and diverse environment.</p>
Cost Benefit Analysis	6	X					<p>The cost benefit analysis does not take into account specific issues related to compatibility of applications, supporting software components, operating systems and hardware. Nor does it take into account specific business or technical requirements that affect an IT system and make it different from others. Besides personnel issues, these are probably the most complex problems to solve in a consolidation effort like we have underway in Wisconsin. Until these factors have been considered, costs are not clearly known.</p>
Cost Benefit Analysis	6				X		<p>On the other hand the cost benefit analysis does not take into account longer term efficiencies that might be gained through more effective IT standards and processes, including utilizing common technologies. These benefits do not automatically come with consolidation, but could be encouraged by it. However, there are also longer term costs associated with these benefits that would need to be taken into account.</p>
Cost Benefit Analysis	6	X					<p>The cost benefit analysis does not take into account the possibility of achieving cost savings by looking for efficiencies in existing environments, or a subset of existing environments. Savings from using standard products and processes, as well as more effective administrative tools and practices can be gained in this manner while avoiding the costs associated with a disruptive and massive consolidation effort.</p>

Cost Benefit Analysis	6				X		The cost benefit analysis assumes a server replacement cycle of three years. I doubt this is the case in most agencies, or even industry wide. In our environment, our own efforts to increase the effectiveness of our operations have resulted in a server replacement cycle of 5 years or more. If this represents reality, the calculations in this report are in error.	
Cost Benefit Analysis	6	X					While the analysis does take into account some costs associated with the state personnel required in this effort, the picture is incomplete. The numbers assigned to staff needed for this effort seem to be very, very low, and no costs associated with backfilling for involved staff, or the lack of their effort on existing projects (opportunity lost) is accounted for.	
	6				X		The 30% reduction in servers based on virtualization seems to be unsupported. That number may be an average within and industry, but how about across industries? In addition, there seems to be no specific accounting for virtualization that has already occurred within agencies. The same concerns and questions apply to the savings attributed to implementing best practices.	
DOJ Staff Participation							The Department of Justice has provided significant resources to many enterprises IT efforts and we will continue to do so. However, we can not afford to provide key resources full time or nearly full time to a project of this duration. We can provide part time support for the efforts and suggest we can add the most value to the areas of Management, Network and Data Center.	

Agency/Committee Name		Today's Date					
Wisconsin Ethics Board		8/10/2004					
Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Appraisal Inventory – Version 1.03	171	2	4	X			Add after "regarding" – "Wisconsin's ethics code and lobbying law"
	172	1	8		X		Change "Whitewerks" to "Sundial Software"
	172	3	1			X	Eliminate sub-bullet



	173	1	11	X				Remove the word "information" after public officials.	
	173	1	15				X	Remove the word "is". (Third word from the last word in the line.)	
Inventory Summary Section	173-5			X				NOTE: Firewall is listed under Network Services, but not under Security. The Ethics Board's file server (WEBSERV01) has many Access databases, a couple of which supply data to the SQL server at Whiteworks for our Web site which is hosted there. There are also many ASP pages used on our web site. The inventory appraisal does not include two servers that are hosted by WhiteWerks (IIS & SQL) and their dependency on these servers should not be overlooked. Note: These servers are mentioned in the narrative Turnaround Summary but are not listed as inventory line items in the Appraisal Summary.	
Inventory Summary Section				x					

Agency/Committee Name Department of Administration (DOA) - individual feedback							Today's Date 8/1/2004
Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Conceptual Design	Gen			X			We support the recommended strategy.
Conceptual Design	Gen			X			Successful implementation of the strategy will require strong leadership and significant support of the leadership direction.
Conceptual Design	Gen.			X			The magnitude of the change from infrastructure provider to service provider is significant enough that the management skills of the DET organization need to be examined.
Conceptual Design	Gen			X			Having a strong advocate in DET for service dependent entities will improve the likelihood of success of the cultural change and service provision. Structure the organization and support infrastructure, processes, etc so that there is a strong connection between people that interact with the customers throughout the organization.
Conceptual Design	Gen			X			Build performance metrics around service delivery and customer satisfaction.
Conceptual Design	Gen			X			Establish a change management structure, goals and implementation plan. Follow through. DOR had a formal change management structure for ITS with a formal team. Get info from that agency and others that have successfully used this approach.

Conceptual Design	Gen				X		<p>Create well-formed policies and procedures will for the "foundation" components.</p>
Conceptual Design	Gen				X		<p>Tap agencies' expertise for things like SLAs, chargeback, service models, .... Everything.</p>
Conceptual Design	Gen				X		<p>We need to focus on a value-add proposition for DET and achieve it. CC recommends high-quality service provision for a specific set of services. If our intention is to focus on high-quality delivery of set of services, service delivery should be a higher priority than innovation. Focus and communicate on that value-add and do not divert resources to activities not aligned with that mission.</p>
Conceptual Design	Gen.				X		<p>Crowe Chizek appropriately recognized risk factors and the need for "foundational technologies and processes" to be established for all services within DET. This priority should get additional emphasis, as it is a critical dependence for successful implementation of consolidation. DET has begun the cultural shift from infrastructure provider to service provider. However, because of the importance to overall successful delivery of state business, a formal evaluation (audit) of service readiness should be considered a precursor project to server consolidation for critical business functions with high risk. There are formal models and methods like ITIL and others that help define structure, roles, and processes. Appropriately, the provision of IT applications is recognized as a fundamental component of delivery of business. The strategy is the appropriate direction for the state government enterprise. The estimation of potential savings as identified in the report is reasonable. But more important, this direction/rationalization will set a beneficial foundation to shape many other facets of the ever-increasing IT integration with business service delivery. These longer-term benefits, while not quantified, are the reason to proceed. The level of business performance will ultimately be the true measure of cost/benefit. If inferior long-term performance results, these savings, no matter how large, will pale against the consequence.</p>
Cost-Benefit Analysis	Gen				X		<p>Real focus on change management requires resources and may increase management costs as estimated in the cost-benefit analysis.</p>
Conceptual Design	14	1				X	<p>Foundational elements refer to a restrictive term of "Data" in the presentation and "Data Centers" in the printed document. Wisconsin moved some years ago to recognition that the more accurate foundational concept is that of "information" (data with meaning). Limiting the concern to the physical plant and not to understanding the use of the information may lead to costly configuration mis-steps. It would seem the information use, its integrity, availability and accessibility and retention should be understood to get the design right (security, sharing retention, access etc.)</p>

Agency/Committee Name  
**TLC Information Security and Privacy Domain Subcommittee**

Document Title	Page No.	Para. No.	Line No.	Category (check one)		Comments
				Critical	Subst. Admin.	
Conceptual Design and Cost/Benefit Analysis	Gen			X		<p>The Appraisal Report documents fail to even minimally address the increased level of security that will be necessary when the State of Wisconsin consolidates its server assets, applications, and databases in a central data center.</p> <p>While consolidating servers may produce operational savings, doing so increases the potential impact of a successful cyber attack. In the current distributed environment, the impact of a successful cyber attack or internal threat is generally limited to one agency, whereas in a consolidated environment, the impact is likely to affect all agencies and the general public who use many state applications. Such an event would likely result in very adverse consequences for the State. Redundancy and proper response and recovery procedures will be crucial in the consolidated environment.</p> <p>A consolidated environment demands an increased level of protection, including robust network perimeter defense, physical security, and security for applications and databases co-located on the same server. This will require not only software and hardware tools but also staff to monitor them. This needs to be a critical part of the foundation projects. The Conceptual Design needs to address the security architecture required for a consolidated data center and how an increased level of protection will be provided. The Cost-Benefit Analysis (CBA) needs to account for any additional costs to provide and support this increased level of security, as well as the potentially greater costs associated with a security compromise within a consolidated environment.</p> <p>We believe the conceptual design discussion must include initially at a high level:</p> <ol style="list-style-type: none"> <li>1. The level of security that will be provided and how.</li> <li>2. Security provisions during and immediately after the consolidation.</li> <li>3. The role of the consolidated provider and the role of the agencies and how those roles will be coordinated regarding security.</li> </ol>

							The CBA needs to adequately assess the costs of providing the required security in a distributed server environment (current state) versus the costs in a consolidated server environment (planned future state) and any increased costs need to be factored into the CBA.
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Agency/Committee Name IT Management Domain									Today's Date 8/12/2004
Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments		
				Critical	Subst.	Admin.			
Conceptual Design	3	Implementation		X			Add to second to last bullet on this page "but not be implemented until the foundation projects are sufficiently in place."		
Conceptual Design	6, 27, 28	Scope			X		Project management for projects related to support activities in scope should also be in scope. For example, project management for a project to upgrade a server operating system should be in scope. Project management for an apps development project is out of scope. Wording similar to what's under application support on page 27, 4 <sup>th</sup> bullet, would handle this.		
Conceptual Design	8	First bullet				X	The "No" in "No economies of scale" should be changed to "Fewer". Large agencies have already realized economies of scale by consolidating many of their servers.		
Conceptual Design	10	Diagram			X		Not very clear – the one in the PowerPoint used for presentations is MUCH more understandable.		
Conceptual Design	12	Second bullet			X		It's true that more hardware means more opportunities for hardware failure, but those failures have a smaller impact.		
Conceptual Design	15	Organization		X			You've made the point very well that a quality of service culture must be created. The organization project should include defining metrics that will show when this foundation project is 'ready' enough to implement the services.		
Conceptual Design	22	Picture			X		I'd show apps development as a separate box with arrow to line in between the help desk and business liaison lines.		
Conceptual Design	24	Last				X	Not clear how many leadership roles are needed. Are there 3 (project manager, agency coordinator, technical lead) or is agency coordinator part of technical lead? Or part of project manager role (which is what it looks like on the chart on page 25)?		

Conceptual Design	25	Ready				X		Planning should also include risk analysis and building a mitigation plan, documenting the baseline budget and schedule, defining a change control process, and creating a widely-accessible websites for project documents. It should also include defining status reporting process.
Conceptual Design	28	Project management		X				PM for infrastructure projects should be in scope.
Conceptual Design	29	General		X				General admin support such as rate setting and billing should be in scope. Might want to specifically mention records management as out of scope.
CBA	2	Last				X		The net present value calculation uses 8% - our budget and finance folks require that we use the current interest rate for master leases which is substantially lower I believe. Please include in the assumptions why you selected 8%.
CBA	3	3 <sup>rd</sup> under methods				X		Please include the \$ amount for current server support costs or refer to page 13. This is a very important number, as it's the baseline from which we'll calculate savings in the future.
CBA	4	Second bullet				X		Fewer servers could require more effort to support if they become too complex. All servers aren't equal, so it's hard for me to think of servers per support person as a really good metric.
CBA	4	Second to last				X		2400 servers mentioned here and many other places, but it doesn't match chart on page 13.
CBA	Overall			X				CBA should include risks of consolidation as well as benefits - or identify non-quantifiable costs as you do for savings on page 14. Things like larger impact of hardware failure, danger of 'one size fits all' service (too expensive for some folks, not good enough for others).
CBA	5	1		X				It appears that personnel savings are predicated on reducing staff but not managers (48 in operations, 110 in server support). If staff are reduced this substantially, managers should also be reduced. Note that the DBA count includes managers. (assuming numbers in inventory are correct).
CBA	5	Server - last paragraph				X		How can adding the costs of more expensive hw, memory and virtualization result in further reductions of cost?
CBA	5	Space				X		If we can't capture savings of no-longer-used office space, and we'll have to find new space for servers - then space costs should be included in the CBA under costs.
CBA	6	Model 3		X				Savings is only 54 staff (110-56), not 60.
CBA	6	Last				X		Why amortized over 3 years. I believe we normally use 5 and in presentation to DWD ITSC on 8/5 Crowe mentioned replacing servers every 5 years also.

CBA	7	First bullet				X	Need some explanation for the 10% discount. Seems like salaries will increase when everyone is at enterprise level and as salaries change. Appendix mentions this is more conservative, but when same salaries are used for both costs and benefits I'm not sure this is conservative.... Please be consistent. This uses 1600 for servers instead of 1680.
CBA	8	Support Tools	4			X	
CBA	9	5-6			X		These two paragraphs about 25 FTE's seem to contradict each other. If we plan to use 25 FTE first year, and in later years the people costs are calculated into the savings, then it's accurate to put them all in the first year. But then I'd expect the second year savings to be somewhat less than year 3 which might be a little less than year 4.
CBA	9	Table	Last cell		X		If you expect to use 17 managers and 8 staff for server consolidation, where are the rest of the staff coming from to do the implementation? If there aren't more internal staff being used, then why do we need 17 managers? Shouldn't there also be costs included for training and testing (agency staff will need to set up testing, conduct testing, probably make application changes), for additional space costs for all years (since can't recover space currently used)?
CBA	10	Table			X		The server savings is confusing. It would be easier to understand if you showed new purchases of servers, and then savings or cost avoidance from not having to purchase other servers. I've been told that the hardware isn't identified as cost because it will come out of what agencies would purchase anyway (1/3 of servers replaced each year.) I know that DWD doesn't replace 1/3 of servers each year. See also comment below for page 13.
CBA	13	Table		X			Does not seem reasonable to use same annual unit cost for before and after consolidation. Example: 15 email servers remaining after consolidation will not cost \$7500 each as they may have averaged before consolidation - they're larger, faster, more fault tolerant. Also - half of the server savings almost come from email servers - this one line - but the CBA doesn't include any of the costs of email consolidation.
CBA	13	Table		X			Total servers are 2596 reduced to 1874 - doesn't match inventory and other parts of documents.
CBA	14	6 <sup>th</sup> bullet		X			Replace any with some - we're certainly not saving all the annual maintenance fees!
CBA	17	Table				X	Looks like you used the management salaries in calculating the average, but didn't count management in applying the staff reductions. If you leave out management salaries could do without the 10% discount which doesn't seem to make sense...

CBA									Crowe uses 38% added cost for benefit and while that may be the benefit rate total from HR- it is not true from a budget perspective and not true in IT. The % for IT (because those salaries are generally higher than the norm) is a much lower %.
CBA									No budget fully funds the salary line (only 97%) and the calculation allowed when setting budgets for benefits is only 20%. If the money is not there to cut and the report claims it as savings, how can this be justified?
CBA									There is a cost to bringing agency staff into DET to do the implementation work over the next two year. These people will not be able to do their agency work. Agencies will incur costs to backfill their loss or incur business disruption: when things stop and there is no one to fix it, the business area incurs a cost.
CBA									If ignores the fact that we will have to train 35, 000 people on a totally new product. Also no costs for conversion or agency loss of function (document archive, retrieval) were included. There is an impact to agencies where DET will charge agencies for support when they didn't have that expense in the past.
Conceptual Design	15						✓		While the section on Organization (foundation) mentions several key points, it fails to mention the need for the consolidated server services to have a well defined and commonly understood "governance" structure for dealing with operating issues. While final decisions rest with the DOA, maintaining a sound system of agency input and communication is essential to success of any operation of this scale.
Conceptual Design	15						✓		That discussion of "governance" will need to include a discussion on how the issues addressed in the operation of the data center relate to the "governance" of the larger enterprise – both strategic and tactical. Based on the experience in Wisconsin with the consolidation of mainframe services, the Organization Foundation plan should consider including a commitment by DOA to periodically perform a benchmark study of the consolidated services performed by an independent vendor specializing in that type of work. The discussion should agency input in selection of the vendor and management of the contract and length of time for the initial contract. The benchmark effort can not only examine cost/value issues but also be fashioned to address customer services issues as well.
Conceptual Design	20						X		This section seems very limp and insubstantial. Where the rest of their ideas for deskside support?
Conceptual Design	15						X	19 on	The importance of Organization can not be overemphasized. This is the most critical part of the whole effort.

Conceptual Design	24	1	11-14	X			This Organization role needs to have an explicit focus on enterprise change management. For agencies, staff and the enterprise as a whole. The lingering feelings at DOT about InfoTech is a good example of what can happen.
Conceptual Design	25	All	All	X			The project must ensure that enough time is spent planning and creating an effective organization structure. Some IVV of the structure and proposed process might help.

Agency/Committee Name  
**Office of the Insurance Commissioner (IOC)**

Today's Date

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Conceptual Design		8	7		X		The paragraph states the Appraisal phase estimated the level of consolidation feasible for each agency, but we cannot find any listing of how many servers or personnel would be consolidated from each agency, including our own. Does this information exist, and if so, where is it? Currently you cannot readily assess how the study went from the inventory to the conclusion.
Cost/Benefit Analysis	GEN			X			In the life cycle of an application, there are different personnel who must touch the servers for different purposes. For example, our agency uses technical staff to set up the operating system for development and test servers. The applications staff set up the middleware (software that supports an application like Weblogic) and the coding languages (software to code the application like Java. This is a common use of servers among some agencies that must be factored into the Cost/Benefit analysis because this work would still need to be performed somewhere -- either it becomes more work for DET or agency development staff need to be brought in. Also, it should be noted that some servers have multiple functions and can't necessarily be consolidated.
Cost/Benefit Analysis	GEN			X			If an agency loses a position and the associated funding for the position in the consolidation process, and then is charged for services it formerly funded, how is that agency better off? How much will agencies be charged for work they currently provide themselves? Will agencies be given new budget authority to cover such costs, (which are a new unbudgeted expense foisted on them) and if so, isn't this a cost that should be factored into the cost/benefit analysis? This will be a significant cost for nearly all agencies and must be factored in to present the total picture. If you are calculating "costs saved" by the agencies, then to balance the equation you must also factor in new costs not currently incurred.



Cost/Benefit Analysis	GEN				X				The report assumes that there will be no degradation of service in a consolidated server environment, but there is a cost when you factor in slower response times, inability to make meetings, inability to be available to assist on other problems they currently assist with. It is difficult to factor this in but somehow this should be noted.
Cost/Benefit Analysis	4	6	2		X				We would argue that another option (that might improve the overall Cost Benefit analysis of the project) would be to exclude agencies with ratios of servers to support staff above the state average (22:1) from the consolidation. That way, the least efficient agencies (lowest hanging fruit) would be brought into a more efficient organizational structure, while the more efficient agencies would be free to continue to operate as they do at present.
Cost/Benefit Analysis	4	6	2		X				The report doesn't seem to recognize that as a small agency, we have one professional position that handles servers but the position is also responsible for other tasks such as maintaining our network, all office hardware and software procurement (not just for servers), help desk support, etc. Counting what is effectively less than a quarter of this position's time as 1.0 server position assumes that person does server work exclusively. That is not true and we cannot afford to lose all of any position that spends less than half-time on server matters.
Cost/Benefit Analysis	GEN				X				There doesn't seem to be an acknowledgement that in addition to noting a cost for increasing bandwidth, there would be a cost to upgrading links to various state office buildings.
Appraisal Inventory	188					X			We do not have a full time Administrative DBA. On average only 15% of OCI's DBA time is spent performing Administrative DBA functions.
Cost/Benefit Analysis	7				X				It looks like most of the estimated savings is based on Personnel Cost. These estimates could be substantially different if the FTE count is incorrect. The FTE counts are incorrect for OCI IT staff.
Cost/Benefit Analysis	6				X				Under assumptions, it says that application and database servers will be eliminated on a case-by-case basis. We will need personnel staff to maintain the servers, if this means that the servers will not move.
Cost/Benefit Analysis	6				X				Under sample models, Model 1 seems logical based on the assumptions used to determine savings, but the other two do not. Models 2 and 3 may further reduce the number of physical servers to manage, but someone will still need to manage the items running in each virtual image.
Appraisal Inventory	187						X		OCI's Application servers were counted as Web infrastructure servers. We have three application servers. The definition for Web infrastructure servers is different than the one we used when the survey was completed.

**Agency/Committee Name  
Department of Corrections (DOC)**

**Today's Date  
8/9/2004**

Document Title	Page No.	Para. No.	Line No.	Category (check one)			Comments
				Critical	Subst.	Admin.	
Appraisal Inventory	21	4			X		It was unknown that additional comments could be included within the appraisal. One comment that needs to be noted is that by December 31 <sup>st</sup> 2004, the Windows NT domain structure that resides within the DOC will all be decommissioned along with the supporting servers. Adjusting the documentation to reflect this will eliminate inaccuracy in the planning data.
Appraisal Inventory	21	7	4			X	Final paragraph on the page. All basic networking services such as WINS/DNS and operational processes exist on Windows 2003. Exchange and some SQL still exist on Windows 2000, otherwise all core systems are in AD on Windows 2003.
Appraisal Inventory	21	4					It was unknown that additional comments could be included within the appraisal. One comment to note is that there are 28 disparate LANs with one at each of the institutions and several of the work farms. These provide on-site training and legal research materials for offenders (as legislatively mandated). These networks have very specific security requirements. Projects are under consideration that will combine these into one enterprise WAN with very strict security needs.
Appraisal Inventory	23	10	4			X	Anti-virus services operate under a three pronged philosophy (not two as noted). McAfee virus shield delivers real time protection to workstations, Sybart's Antigen provides scanning protection for email services using multiple anti-virus engines and Norton's Symantec provides protection to all other server systems. This three pronged approach was established to provide the greatest level of security and least amount of lost time/data.
Appraisal Inventory	23	3	2			X	Currently there are 29 NT domains (28 of which are separate education LANs at institutions and one being the administrative WAN ) in operation and two directory forests, one Microsoft Windows 2003 and on Novell eDirectory.
Appraisal Inventory	24	7	1		X		Instead of 'Recently' in regards to file and printer server consolidation, it should state 'in process'. The number of listed devices does not coincide with the term 'Recently' as the number of true site NT BDCs will drop within this consolidation along with the complete dismantling of the NT domains by Dec 31, 2004. Additionally, the paragraph should read the DOC has consolidated from 160 NT BDCs to 44 Windows 2003 domain controls and 80 print devices at remote sites in addition to the Educational server systems.
Appraisal Inventory	25	2	1		X		Data Center Space is approximately 2200 Sq. Ft. which includes the fully functional central data center in addition to the MDF which supports some core networking devices and the enterprise tape library systems. Additionally, there are 140 or so sites that host a print device or server system in non-data center space.