Legislative Report on the Centralization of Information Technology

July 1, 2010

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Executive Summary

The Legislative Mandate

Minnesota Laws 2009, Chapter 101, Article 2, Section 105 stipulates that…

"The chief information officer of the Office of Enterprise Technology, in consultation with heads of other executive agencies, must report to the chairs and ranking members of the senate and house of representatives committees on state government finance by January 15, 2010, on an interim basis and by July 1, 2010 on a plan to transfer from other state agencies to the Office of Enterprise Technology state employees whose work primarily relates to development, upgrading, replacement, help desk, problem resolution, or maintenance of state data centers, system software, data networks, servers, workstations and office systems.

"The report must include an estimate of the number of employees who would be transferred, an estimate of enterprise costs savings, an analysis of potential improvements in operations and agency-required service levels, a cost comparison of alternatives to the transfer plan including in-sourcing, shared services, outsourcing, and co-sourcing, and a proposed transition plan and schedule.

"State agencies must participate and provide information necessary for the Office of Enterprise Technology to comply with this section."

Introduction and Context

This report, as mandated by 2009 law (see mandate, left), outlines a high-level analysis of the costs, benefits and risks for transferring all executive branch information technology (IT) employees to the Office of Enterprise Technology (OET).

In order to meet the intent of the law, the report also outlines two alternative models for managing executive branch IT. The report is meant to provide a high-level understanding of the options, relative benefits, risks, and probable outcomes of executive branch IT centralization as described in the law.

This is not an action plan, nor a recommendation. The State will need to set priorities that define specific goals and outcomes, designate investment dollars, address statutory and workforce issues, and put together a planning team in order to develop details if it decides to move forward with these or any other options.

Scope

This report addresses the executive branch only ["the State"], excluding Minnesota State Colleges and Universities (MnSCU) and other quasi-executive branch agencies. A complete list of agencies that were included in the assumptions and data-gathering activity is located in Appendix 1.

The report also limits itself to a sub-set of the State's IT activity and resources, corresponding to those services that are outlined in the mandate, commonly referred to as "operations." This represents 41 percent of the State's total IT spend and includes:

- Data center facilities
- Mainframe-related services
- Server, storage and back-up
- End-user services (PC, service desk, print)
- Telecommunications (management)
- Security (operations)
- Common infrastructure applications (email, SharePoint, etc.)

In particular, the analysis does not include the management of business applications that are unique to individual agencies (e.g., Unemployment Insurance, SWIFT).

Process

As specified in law, the report has been managed by the Office of Enterprise Technology (OET) under the leadership of the State Chief Information Officer with input and assistance from executive branch agencies.

Governance: The steering team for the report's preparation is a standing executive branch IT governance team known as the Program Review Team.

Data Collection and Analysis: This report is based on an intensive data collection and assessment process aimed at fully documenting the "as is" state of executive branch IT so it could be analyzed for strengths, weaknesses, room for improvements and economies of scale, and compared with private sector providers. OET engaged a third party specialist – Excipio Consulting, LLC ["Analysts"] – to conduct the analysis. Excipio has performed multiple similar engagements for other public and private organizations ranging in size from 1,000 to over 100,000+ employees. Public clients include: States of Michigan, Ohio, Pennsylvania and Washington, the US Forest Service and Food Safety Inspection Services (FSIS), and the cities of Los Angeles, Chicago and Minneapolis.

The data analysis process included:

- Agency data collection: Collection of data was based on templates filled out by the agencies & follow-up interviews to verify data
- Bottom up/top down analysis: Analysis of agency data, comparing a "bottom up" analysis of resources and assets with "top down" agency data on total spend
- Comparison to state data and documents: Comparison of agency data with MAPS, SEMA4 reports and with the 2008 IT Portfolio Report
- Validation with agencies: Review of analysis and data conclusions with agencies
- Validation with Minnesota Management and Budget (MMB): Review of assumptions and methodology with MMB

The primary cost for the report is $735,200 for Excipio's data analysis, environmental assessment, observations and conclusions upon which this report is based. This does not include OET or other agency costs, which are not able to be accurately calculated.

The Models: A Summary

Defining the Centralized Models

The following three models created by the Analysts demonstrate the range of options available to the State but do not reflect the even wider range and breadth of options within options that would be determined by further analysis based on opportunity, resources, and priorities.

For this report, the analysts were asked to develop each model, within its parameters, in a way that would

- Optimize costs
- Maintain or improve service quality
- Increase the State's flexibility to adapt to and adopt new technologies
- Ensure consistent scope and capabilities, to the extent possible, across the options presented
- Compare with industry norms and best practices, without disqualifying an option because of known current labor restrictions and agreements, outsourcing laws, or other state-imposed or political constraints.

Centralization Models	
Primary Model: All infrastructure IT centralized to OET	All executive branch infrastructure functions and services are centrally managed by the Office of Enterprise Technology and in-sourced, i.e., provided by state employees. This model assumes that individual services other than the current telecommunications partnerships will not be outsourced (contracted to a third party).
Alternative 1: Full outsourcing to a single vendor	All operations IT services as defined in this report are outsourced to a single third-party vendor with only contract management, quality control and security services managed by a small central state IT management staff (fewer than 50).
Alternative 2: In-source, outsource to multiple vendors	This "hybrid" option outsources most operations services to two vendors, based on their particular area strengths, and in-sources the remaining services. The model assumes that all services – whether in-sourced or outsourced – will be centralized and standardized.

The models outlined each represent a "best case" scenario that assumes full implementation over seven years. Any changes to scenario assumptions, any partial or incomplete implementation of option elements, or any shifts to our environment between now and the execution of a detailed plan would change the range of benefits and results.

Additional Models

There are many additional models that could have been explored but were not included among the illustrations in the report. They include, but are not limited to:

- A model in which the same human resource changes are applied to the current decentralized environment, triggering similar kinds of efficiencies as the models presented.
- A model which utilizes a more customized and wider range of in-sourcing / outsourcing options, based on State capabilities and market opportunities, and which centralizes functions on a planned, phased basis. This model most closely mirrors the current State IT direction.
- A model that centralizes all staff, but does not in-source all services, selecting from a wider range of in-source, outsource and partnership opportunities.

Baseline: Our Current State

In order to analyze the benefits, costs and risks of the centralized models, it was important first to establish comparative data on the current de-centralized state. This resulted in a large data-gathering exercise that has provided a heretofore unavailable snapshot of our current IT environment.

State IT Spending Summary, 2008-2009

Category	Operations	Applications	Software	Total
People (State FTEs)*	$ 78,733,323	$ 87,285,806	-	$ 166,019,129
Contractors	$ 1,626,702	$1,606,123	-	$ 3,232,825
Hardware	$38,851,541	-	-	$ 38,851,541
Software	-	-	$45,135,253	$ 45,135,253
Professional Services (project-based contracts)	$ 10,779,414	$ 54,170,263		$64,949,677
Supplies and Other	$ 13,325,451	$ 9,237,348		$22,562,799
Data Center Rent and Utilities	$ 4,767,750	-	-	$4,767,750
Subtotal	**$148,084,181**	**$152,299,540**	**$ 45,135,253**	**$361,403,865**
Telecommunications Contract Spend**	$15,884,890	-	-	$15,884,890
	$163,969,072	$152,299,540	$45,135,253	$361,403,865

*****Management and administrative staff have been proportionally divided between Operations and Applications; does not include HR and general administrative functions.

**Pass-through dollars for telecommunications contracts with third-party vendors only; telecommunications contract management is included in "People", above.

Above: The State's total annual IT spend of in-scope agencies is approximately $361 million, of which approximately 46 percent represents labor costs (employees plus contractors). This estimate is based on a comparison and average of 2008 and 2009 data and includes applications and software, which are out-of-scope for this report.

Using our current operations costs as a foundation, the analysts created an annual baseline for costs to the State over the next seven years if the environment remained the same. This baseline was used to compare the three centralization models with the status quo.

Baseline: Current State Annual	
In-scope Annual Operations (see "Subtotal Operations" above)	$148 million
Projected annual compensation increases for management and other staff	$7 million
Baseline "as is" annual spend for next 7 years	$155 million

High-Level Outcomes

The analysts conclude that all three models fully implemented demonstrate "significant opportunities to increase the efficient delivery of IT services at the State of Minnesota and to realize significant cost savings." The analysis recommends, however, that no model can be undertaken without careful consideration of the significant risks and benefits, and until the State identifies resources and sets outcome goals.

Comparative Outcomes for Centralization of State IT Operations			
	Centralized to OET	**Alternative 1* Fully Outsourced**	**Alternative 2* Outsource/In-source**
Average Annual Operational Savings (compared to operational baseline of $155M)	$35 Million 22 %	$51 Million 33%	$58 Million 38%
Transition Investment Costs (years 1 & 2)	<$65 Million>	<$174.6 Million>	<$116 Million>
Annual Net Savings (average per year)	$25 Million	$26 Million	$41 Million
7-Year Net Savings	$177M 16.3%	$185 Million 17%	$290 Million 26%
Impact on Employees	• 25% reduction over 2-3 years • 1st year 5% overall cut in compensation • Salary freeze, year 2 & 3 • Additional ~10% staff displacement for talent upgrades	50%+ reductions over 1-2 years	50%+ reductions over 1-2 years
Quality of Service	Higher than current, but not achieving levels comparable to outsource models	Significantly higher than current	Significantly higher than current

** Operation costs and savings for alternatives 1 and 2 are based on averaged data provided by specific vendors in a market analysis.*

Above: The relative outcomes for each model are based on the full execution of the analytical model and the assumptions as outlined. Changes to the assumptions or partial implementation will alter the results.

Evaluating the Risks

In their report, the Analysts conclude, "each of these options carries a high degree of risk overall, given the magnitude of the recommended changes." Major risk include, but are not limited to, the size and complexity of the changes, the significant investments in years one and two, the length of the change window, the need for additional expertise, statutory and union agreement limitations to the ability to undertake staffing changes and reductions, and the difficulty of executing all changes on time and on budget.

Although the Analysts did not compare the overall risk of change with the risk of doing nothing or of incremental change, they provided an evaluation of relative risks among the three models (1 being the lowest risk and 3 being the highest). Their analysis indicates that, among the three models, Alternative 2 – the hybrid solution – poses relatively fewer risks than the other options. A more detailed risk analysis for each option can be found in Appendix 2.

Relative Risk Ranking of Models

Risk Factor	Centralized to OET	Alternative 1 Fully Outsourced	Alternative 2 Hybrid
Contract Execution	**1**	**3**	**2**
HR Implementation	**3**	**1**	**2**
Transition/Transformation	**3**	**1**	**2**
Financial Execution	**3**	**2**	**1**
Executive Branch Acceptance	**1**	**3**	**2**
Average	**2.2**	**2.0**	**1.8**

The Analysts describe their risk rankings as follows:

Contract Execution – Addresses the risks associated with defining and executing outsource contracts that position the state to achieve the cost savings and realize the service improvements. Alternative 1 (full outsourcing to a single vendor) received the highest risk, as this would concentrate risks and rewards with a single vendor. Centralization to OET received the lowest ranking, given that it would not involve any outsource contracts, but would still require internal contracts between agencies.

Human Resources Implementation – Addresses the risks associated with handling staff reductions, transitioning employees to the outsource vendors (Alternatives 1 and 2), and being successful in changing HR policies. Centralization to OET was deemed the highest risk, given the requirements to upgrade talent, implement more rigorous performance management, implement salary cuts, and other compensation changes along with the reduction in staff. Alternative 2 (hybrid solution) was viewed as the next highest risk, given the need to manage multiple vendors.

Transition/Transformation – Addresses the risks associated with executing the transition (transferring responsibility to the vendor and/or transferring responsibility to a central IT organization) as well as the transformation activities that implement the new processes, technologies, etc., to optimize a centralized environment. Centralization to OET bears the highest risk, given the lack of experience within the State to manage an initiative of this magnitude and complexity, as well as the challenges with successfully implementing the HR and cultural changes. Alternative 2 (hybrid) was rated the next highest risk, given the complexity of managing a transition and transformation effort across two vendors and retaining certain in-source service areas.

Financial Execution– Addresses the risks associated with achieving the financial business case for projected savings. Centralization to OET is rated as the highest risk due to the higher HR and transition/transformation risks that would jeopardize the ability to realize savings, the need for up-front capital of $30M-$40M, and the risk of changes in government policy from year to year that could impact priorities, funding, schedules, etc., or otherwise

disrupt the transformation plan. Alternative 1 (full outsourcing) is rated the second-highest risk, due to the total dependence on one vendor to achieve the expected results.

Executive Branch Acceptance – Addresses the risk related to ability of individual agencies to work together collaboratively to make quick decisions and to implement the consolidation and standardization required to optimize the environment. Alternative 1 (full outsourcing) is rated the highest risk, as it assumes that a single vendor provider would likely be the most structured and restrictive environment. Centralization to OET would be the lowest risk, as the State would still retain much of the flexibility and decision-making capability. However, this additional flexibility may translate into slower decision-making and reduced benefits realization that affects other risk areas.

Transition Plan for Centralization to OET

The information below outlines assumptions made by the Analysts in order to create the primary model in this report.

It is important to reiterate that this is not an actionable plan, but a high-level model and scenario, one of many available options. An actionable plan would be developed in Phase One, based on additional analysis and a definition of goals, resources, and executive direction.

Service Delivery Model

Based on the legislative mandate, this service model assumes a centralized, in-sourced IT operations service that would be comparable and competitive with other providers in levels of service quality, efficiency, service delivery, economies of scale, security, etc. The model is primarily driven by the following high-level assumptions:

- Services are provided to state agencies on a "utility service" basis (no optional procurement from another source).
- Service delivery is in-sourced by state employees, with the exception of telecommunications, where significant third-party partnerships are already being leveraged.
- State servers are consolidated to four primary sites, with one additional disaster recovery (DR) site.
- Asset management is centralized.

Service Quality Improvements

Although asked in the data collection process for this report, most agencies did not provide objective metrics for current service levels for the IT services that they deliver within their agency (i.e., desktop support, project management, storage). Therefore, the Analysts found it difficult to evaluate the current levels of service and have concluded that most currently provide "best effort" services to their agency customers, and service quality measurement is primarily subjective.

Without standard metrics, it is difficult to predict quantifiable service improvements in a centralized model. However, in their estimation, the Analysts expect that overall "Quality of Service" in this model would increase over the current state. From a user perspective, the Analysts expect that these improvements would mean "more reliable infrastructure IT services in support of business and a more responsive IT organization."

Service Quality Improvements	Possible Service Quality Challenges
• Services would be managed centrally through standard and common processes • Services would be delivered under formal Service Level Agreements (SLAs) that outline available levels of service and service expectations • The State would provide a single true Service Desk, characterized by first call resolution of 70 percent or better and high customer satisfaction feedback. • All systems and tools would be managed through industry-standard ITIL processes.	• IT management and service support may be more physically and managerially removed from individual agency business environments • There will be different service processes and procedures for operations (managed centrally) and applications (managed locally) • Cultural acceptance of and "trust" of centralized support and a central service desk will take time

Human Resources

Staffing Levels, Operations*

Current State	End State, Centralized Model
• 879 operations-related FTEs*, including a portion of IT administration and management • Disbursed over 70 state agencies and boards in the executive branch	• 663 operations-related FTEs (25% reduction) • Reporting to the Office of Enterprise Technology

**933 State Applications FTEs are not included, and are assumed to remain de-centralized.*

These estimates are based on an analysis that included

- Staff sizes for comparable IT service providers
- Redundant functions in the current State environment
- Observed inefficiencies in the current State environment

In this centralized model, not all services would decrease staff size from current enterprise-wide levels. Some – in particular, asset management and operations – would increase to meet industry standards in areas that are currently absent or understaffed.

Compensation

The Analysts' costing model assumes the following compensation changes to drive the optimization strategies and achieve a cost structure that is more competitive in the market:

- Overall compensation cut of 5 percent in year one (further analysis is required to confirm which State service areas' and classifications/skills' compensation differs significantly from the market)
- Salary freeze for years two and three
- Average 2 percent compensation increases in years four through seven

Changes in Leadership and Skills

The staffing model assumes the following changes to optimize staff levels and increase efficiencies:

- Adopt private sector style management practices to raise productivity and increase accountability.
- Import or "swap out" leadership experience in running large and efficient IT organizations.
- Tap experienced program/project leadership to drive the consolidation strategies and manage the overall transition/transformation.
- Hire service area managers and technical leads that have the vision and experience of operating in optimized IT environments.

Overall, Analysts estimate the above improvements would require a 10 percent talent "upgrade" in technical and management staff, i.e., replacement of approximately 10 percent of the current state staff once they have centralized, in order to bring on new skills.

Implementation of HR Model

The Human Resources assumptions in this centralized model are based on creating an in-source model that would be comparable in cost and service quality to the alternative models outlined below. As requested, the Analysts provided a centralized model that met the requirements of the law without regard to specific conditions at the State that might hinder implementation. The model, therefore, does not take into consideration the significant statutory and union agreement limitations that signify the greatest barrier to its implementation.

Operational Costs and Projected Savings for OET Centralization

Operating Costs (by service area)			
Costs	**Base Case**	**Centralized to OET**	**Savings (%)**
Computing Platforms and Data Center	$ 48,892,249	$32,910,603	
End User Support	$ 45,476,193	$34,421,219	
Telecommunications	$ 24,832,839	$22,139,398	
Security	$ 9,968,153	$7,725,707	
Enterprise-wide and Misc. Requirements*	$ 25,335,724	$22,716,303	
Total Annual Operating and Retained Costs	**$ 154,505,159**	**$119,913,230**	
Savings over current state (average per year)* **		**$34,591,929**	**22%**
Total Operating Cost over 7 Years	**$ 1,081,536,116**	**$839,392,612**	
Transition Investment Costs**			
Costs	**Base Case**	**Centralized to OET**	
Severance		$6,664,019	
Move		$1,940,313	
Consulting Costs		$4,500,000	
One-time software, transition and implementation costs		$35,282,830	
Staff ramp-down related transition costs		$16,941,169	
Total Transition		**$65,328,330**	
Total Costs			
Costs	**Base Case**	**Centralized to OET**	
Operating and Transition		**$904,720,942**	
Average Savings Per Year		**$25,259,311**	
Total Savings over 7 Years		**$176,815,174**	**16.3%**

**Includes project management, database, sales/support/account management, procurement, change management, asset management, disaster recovery, etc.*

***Transition investment costs would occur primarily in years 1 and 2.*

****Includes both savings and cost avoidance.*

Funding Model

In the first phase of planning, a funding model would be developed to include:

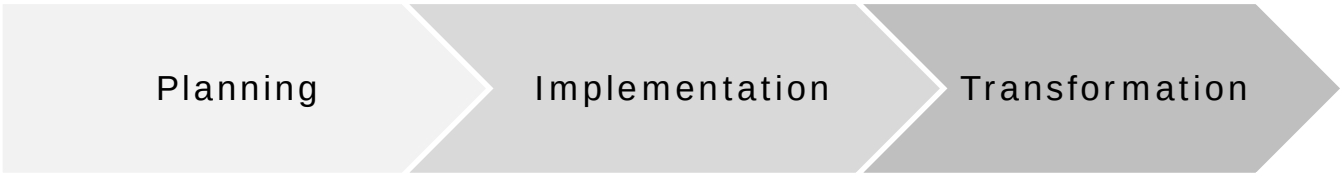
- A strategy to equitably transfer all the funding/costs associated with the staff and responsibilities that are being centralized, including, but not limited to, salaries, benefits, severance, space costs, equipment costs, and administrative/overhead costs such as HR and financial management.
- A funding strategy for transition costs.
- A strategy to address funding sources for IT-related functions to ensure that all costs currently covered at the agency level by federal and other special funds are transferable to a centralized model.

Governance

The current governance process that is founded on voluntary participation would be strengthened in the early stages of transition in order to ensure that agencies are fully aware of and participating in the planning that affects their agencies and employees. Ongoing governance will be fashioned in a manner that ensures that the State's IT strategy and direction serves the business interests of its agency customers and that the agency business leaders are aware of and fully engaged in the IT strategies that serve their operational needs.

Implementation Phases

Analysts divided implementation into three phases that span 3-4 years.



Planning	Implementation	Transformation	
Plan and prepare for the consolidation of staff and to plan the data center remediation initiatives	Integrate IT staff under a new central management structure while maintaining a stable business environment (business as usual); implement tool(s), and develop detailed transformation plans	Transform the state environment to fully realize efficiencies and performance improvements	OBJECTIVE
6-9 months	6-12 months	3-4 years	DURATION
• Address State legal and/or policy issues • Develop and implement a change management plan; socialize the plan with agency leaders • Develop HR/staffing plans o Skills inventory o Organization structure o Overall staffing plan o Severance/buyout plan o Training plan o Identify new/open positions o Hire critical leadership • Develop space plan for locating/re-locating the new teams • Develop data center remediation, migration, and decommissioning plans • Define state governance model • Select enterprise-wide system management and monitoring tools • Develop new financial processes to manage and distribute service costs	• Implement standard service management and monitoring tools and processes • Implement new central organization • Transfer resources to central organization • Establish initial inventory and baselines of assets and software • Build initial asset inventory in configuration management database (CMDB) • Develop plans to transform each service area • Implement governance model • Establish business management capabilities and develop/implement monthly billing process • Initiate SLA base-lining process • Decommission office space as appropriate • Create project plans to migrate agencies and hardware to the data center	• Migrate hardware to the data center • Decommission existing data centers • Implement transformation/optimization strategies for all services and operations processes (see appendix 5) • Establish SLAs, metrics for service quality • Implement ongoing SLA management process	ACTIVITY

Benefits, Barriers and Risks

Analysts scored the centralized model as the second highest risk of the three options presented. Highest risk factors included the ability to successfully manage:

- The model's HR assumptions, including the evaluation and change to existing compensation and contracts and the addition of management expertise under current rules and contracts.
- The implementation of the centralization itself and the necessary transformation of the centralized environment to realize the service quality and cost-savings benefits projected in the final state.
- The identification of required investment funding upon which savings are predicated, and the complexity of developing an equitable transition funding model for the delivery of centralized services.

A more thorough outline of risks and barriers for all three models can be found in Appendix 2.

Other States' Experience in IT Centralization

Michigan

In October 2001, the Governor issued an executive order transferring all IT personnel from executive branch departments to the newly formed Michigan Department of Information Technology (MDIT). The stated goal of the new Department was to manage the state's technology in a unified, cost-effective manner. Once in place, the Department then centralized all information technology resources from the state's 19 executive branch agencies, including IT infrastructure, IT policy, IT planning, systems management, application development and security.

Michigan earned an award from NASCIO for its consolidation efforts, which resulted in substantial savings without negatively impacting service levels. State employee staff was reduced 15 percent (from 2064 to 1762). Contractors were reduced 64 percent (from 1764 to 469) and intergovernmental grant spending was reduced by 24 percent (from $465.6 million to $350.5 million).

Michigan IT leadership estimates that a full seven years was required for equalization, transformation and maturation.

Colorado

In May 2008, the Governor signed legislation that transferred all IT duties and functions to the Office of Information Technology (OIT). The move became effective July 1, 2008. 1,100–1,200 IT workers – including agency CIOs – now report to OIT but have remained housed at their agencies. Transferred workers remain "state classified employees" and retained seniority. The budgetary transfer of employees will start on July 1, 2010.

Delaware

Centralization was achieved with the charter of the Department of Technology & Information (DTI) in 2001. Under the provisions of the statute that created the Department of Technology & Information, Delaware developed a new pay-for-performance compensation plan that exempted technology workers from the state merit system and included the establishment of recruitment and retention bonuses. The new compensation plan has allowed Delaware to implement strategies to "recruit, retain and invest in highly skilled technology workforce," leading to the lowest attrition rate (3.3 percent) in Delaware state government.

Utah

Full centralization was achieved in Utah with the charter of Department of Technology Services (DTS) in 2005 to "consolidate all IT resources and services for the State into one department." In March 2006, all IT employees from other agencies were transferred to DTS. The same legislation allowed DTS to collect revenue from agencies to pay salaries. IT employees became "at will" with an 8.25 percent salary increase.

Alternative Strategies

The following two models are presented, in response to the specific conditions described by the law, as alternatives and comparisons to the primary model – centralization to OET. The State of Minnesota has the opportunity to consider these, among many other available options to craft an IT management strategy that best serves the business needs of the State.

The two alternative models presented below both include outsourcing elements. In order to develop outsourcing models specific to the State of Minnesota, input was solicited from major vendors with a set of parameters that would make the outsource and in-source models comparable. These requirements included:

- Contract term of seven years
- Retain staff and provide equivalent benefits for one year (note, this requirement was viewed as “middle of the road” between some organizations that require this for more than three years versus other organizations that place no constraints on the outsourcer).
- No offshore staff
- Provide all office space for all required staff
- Provide all hardware and support for the in-scope services
- Provide Tier III data center capacity within the U.S.
- Monitor all systems 24x7x365
- Provide true service desk capabilities (versus contact center)
- Utilize ITIL processes across all services
- Provide consistent system management tools
- Provide asset management and software compliance capabilities
- Provide portal and other communication capabilities
- Implement service levels with SLA performance penalties

The vendors used the Analysts’ current state analysis to evaluate their costs. The following two models are based on and specific to the detailed response of four vendors.

Alternative 1: SINGLE OUTSOURCE MODEL

Service Delivery Model

This model assumes that all state IT operations services and capabilities are provided by a single outsource provider. The model assumes that the provider would likely be one of the large, top-tier providers in the marketplace, given the scope of services and size of the State's IT environment. Most of the vendors engaged in the market study for this report had the capability to provide all the services and requirements for the State.

Human Resources

- This model assumes that the vendor would be contractually required to assume responsibility for all in-scope state IT employees for a minimum of one year.
- The State would retain a Strategic Security Team of five to focus on security policy, architecture, audits (in collaboration with outsourced security resources), and escalation on sensitive/high-impact security incidents.
- The State would retain a Sourcing Governance Team of 32 to manage the outsource vendor, as well as act as the liaison between the outsource vendor and the agencies.

Operational Costs and Projected Savings for Full Outsourcing Model

Operating Costs (by service area)			
Costs	**Base Case**	**Outsourced to single vendor**	**Savings (%)**
Computing Platforms and Data Center	$ 48,892,249	$34,874,908	
End User Support	$ 45,476,193	$28,846,590	
Telecommunications	$ 24,832,839	$15,633,698	
Security	$ 9,968,153	$8,424,193	
Enterprise-wide and Misc. Requirements*	$ 25,335,724	$12,301,774	
Governance Team		$2,990,885	
Total Annual Operating and Retained Costs	**$ 154,505,159**	**$ 103,072,048**	
Savings over current state (per year)		**$ 51,443,111**	**33%**
Total Operating Cost over 7 Years	**$ 1,081,536,116**	**$ 721,504,335**	
Transition Investment Costs**			
Costs	**Base Case**	**Outsourced to single vendor**	
Severance		$ 13,328,037	
Move		$ 454,588	
Consulting Costs		$ 3,000,000	
One-time software, transition and implementation costs		$ 35,524,991	
Staff ramp-down related transition costs		$ 122,262,942	
Total Transition		**$ 174,570,558**	
Totals			
Costs	**Base Case**	**Outsourced to single vendor**	
Operating and Transition Costs (7 years)		**$896,074,893**	
Average Savings Per Year		**$26,494,460**	
Total Savings over 7 Years		**$ 185,461,223**	**17%**

*Includes project management, database, sales/support/account mgmt., procurement, change management, asset management, disaster recovery, etc.
**Transition costs would occur primarily in years 1 and 2

Benefits, Barriers and Risks

Analysts scored the outsource model as the second highest risk of the three options presented. Highest risk factors included the ability to successfully manage:

- The risks associated with contract negotiation and management – requires outside expertise and a careful "exit strategy"
- Acceptance by current executive branch leadership

A more thorough outline of risks and barriers for all three models can be found in Appendix 2.

Other States' Experience in Outsourcing All IT

Virginia

The State of Virginia signed a 10-year, $2.3 billion agreement with Northrop Grumman for management of the State's entire IT operation. Northrup refreshed more than 42,000 desktop, laptop and tablet PCs; moved 1,700 agencies sites to a new, centrally managed network; built two new data centers; and migrated more than 60,000 users to a centralized help desk.

However delays, poor performance and disruptions in service, and a lack of realizable savings (promised to be between $20-100 million annually), caused the State to withhold a $14 million payment in June 2009. Various reports and parties have blamed Northrup's management, the State's IT management and the State's governance process for the service issues and cost overruns. The contract was renegotiated in April. The new contract requires an additional $105 million paid by the State to the vendor over the remainder of the contract, but sets rates on a usage basis rather than a fixed baseline.

Alternative 2: HYBRID OPTION (Centralization and in-source/outsource service delivery)

Service Delivery Model

This option is a hybrid of the two previous models, in which internal state resources provide mainframe and security operations, while the remaining services would be outsourced to two vendors in order to spread the risk between vendors and take advantage of vendor specialties.

The model is based on the breakdown of service providers shown to the right:

Vendor 1	• Data center facilities and operations • Server, storage and tape back-up • Telecommunications Management • Common, shared applications (email, SharePoint, etc.) • Database system support • Project management for infrastructure projects
Vendor 2	• End-user services (PC, service desk and print)
OET	• Mainframe-related services • Security policy and operations

Human Resources

This model includes a state-retained "Sourcing Governance Team" of 30 to manage the outsource vendor and act as the liaison between the outsource vendor and the agencies. In addition, over the first two years

- Mainframe and production and control staff would remain, but would optimize from the current 35 to 17.
- The Security Team would combine OET and agency staff and optimize from the current 67 to 60.

Operational Costs and Projected Savings for Hybrid Model

Operating Costs (by service area)			
Costs	**Base Case**	**Outsource/In-source Hybrid**	**Savings (%)**
Computing Platforms and Data Center	$48,892,249	$36,857,023	
End User Support	$45,476,193	$25,940,903	
Telecommunications	$24,832,839	$9,567,396	
Security	$9,968,153	$ 7,725,707	
Enterprise-wide and Misc. Requirements*	$25,335,724	$13,553,548	
Governance Team		$2,803,955	
Total Annual Operating and Retained Costs	**$154,505,159**	**$ 96,448,531**	
Savings over current state (per year)		**$58,056,629**	**38%**
Total Operating Cost over 7 Years	**$1,081,536,116**	**$675,139,715**	
Transition Investment Costs**			
Costs	**Base Case**	**Outsource/In-source Hybrid**	
Severance		$ 13,328,037	
Move		$ 454,588	
Consulting Costs		$ 3,000,000	
One-time software, transition and implementation costs		$12,932,012	
Staff ramp-down related transition costs		$86,264,005	
Total Transition		**$115,978,642**	
Totals			
Costs	**Base Case**	**Outsource/In-source Hybrid**	
Operating and Transition		**$896,074,893**	
Average Savings Per Year		**$26,494,460**	
Total Savings over 7 Years		**$ 185,461,223**	**26.9%**

*Includes project management, database, sales/support/account mgmt., procurement, change management, asset management, disaster recovery, etc.
**Transition costs would occur primarily in years 1 and 2.

Benefits, Barriers and Risks

Analysts scored the hybrid model as the lowest risk of the three options presented. A more thorough outline of risks and barriers for all three models can be found in Appendix 2.

Other States' Experience with Hybrid Approach

Texas

Texas signed an $863 million contract with IBM to provide data center management services for 27 agencies. The contract centralized 31 data centers into two managed by IBM. The consolidation was anticipated to result in cost savings of $159 million over the seven-year term of the contract and to free up 210,000 square feet of data center and office space. IBM assumed responsibility for all data center operations on March 31, 2007.

Initial problems included insufficient parameters surrounding the transfer of state staff and lack of a governance structure, providing little or no opportunity for agencies to provide input or contribute to the decision-making processes.

By August of 2008, customer satisfaction scores for IBM were just above poor. Customer concerns included slow response time, backup problems, billing inaccuracies, service delays, unqualified staff and ineffective communication. It was discovered that IBM was failing to provide backup for twenty other agencies, including the Attorney General's Office, which lost eight months of data from its fraud investigations unit.

DIR hired a contractor to develop a remediation plan. The contractor recommended that DIR not only revise its governance practices, but also renegotiate its contract with IBM. To date, the contract negotiations with IBM are at an impasse and the agencies are continuing to struggle with unresolved service problems. Despite the challenges, Texas indicates that it has saved $9.7 million so far which is less than the original projected amount of savings.

Georgia

In 2008 the State of Georgia entered into contracts with IBM and AT&T to outsource much of its IT infrastructure. The state estimates it will save $180 million across the 12 agencies impacted by the outsourcing arrangements.

The IBM infrastructure services contract took effect April 1, 2009, and is valued at $873 million over eight years with two, one-year options to renew. The scope includes mainframes, servers, printers, service desk, end user computing and disaster recovery. Dell and Xerox are subcontractors.

The telecommunications agreement with AT&T began May 1, 2009, and includes wide-area network, local-area network and voice services. It's valued at $346 million over five years with two, one-year options to renew.

The state's IT agency, the Georgia Technology Authority, aims to become a service-management organization of 80 people or fewer. As of May 1, 2009, GTA reduced its staff to 150, down from 600 in 2006. 290 GTA employees accepted jobs with IBM, 33 state workers accepted jobs with AT&T, and 92 have been laid off.

So far the deadlines have been met and the vendors have successfully taken over the state's IT infrastructure and are now in the process of consolidating all agencies into a single statewide system. The most significant challenge has been holding vendors back from launching new phases of the project before agency managers were ready. There have been some reported "dips in service" in the network. However, customer satisfaction surveys have been improving, and the project is on-budget and only two months behind schedule.

Choosing a Strategy Going Forward

Setting the State's Priorities

State leadership and state agencies have in common the goal to improve the State's IT environment so that it best serves the business of the State and the people of Minnesota. There are many reasons to do so and many factors to weigh in setting a course. Before any strategy can be defined, however, The Analysts recommend that the State set the criteria for future planning. Only by defining the priorities and the available resources can a true plan be crafted for moving forward. How the criteria (right) are ranked would determine the best direction for the State of Minnesota.

Criteria for Setting A Strategy – What are the Relative Priorities?

- Size and timing of capital outlay
- Service quality
- Enabling good government for citizens
- Implementation timeframe
- Human Resources requirements and impact
- Service risk
- Secure digital assets
- Sustainability
- Flexibility to change strategies in the future
- Future cost certainty
- Maximum savings potential/cost avoidance

Current Enterprise Direction

The **2009 Minnesota iGov Plan** outlines a set of consolidation priorities upon which OET and state agencies have already begun to work. The combined momentum of the efforts led by the State CIO and managed through the current IT governance process, has already achieved significant results that move Minnesota towards the goal. The iGov program focuses on phased centralization and consolidation initiatives that will garner results in cost avoidance and service improvements, but evaluates priorities based on available investment dollars, responsible risk levels, and current laws. Many of the initiatives already underway are within the scope of this report, as noted below.

Utility Service (Centralization)	
Email*	Cabinet-level agencies centralized to a single email system managed by OET
Collaboration Tools*	Planning underway for centralized delivery of next-generation communication and collaboration tools
Electronic Licensing*	Central e-licensing application for online licensing services for business and professional licenses
Internet Protocol Telephony (IPT phones)*	Move towards IPT as a standard, centralized service
Standard Contracts	
Microsoft License	Single executive branch contract for Microsoft products
ESRI License	Single executive branch contract for GIS applications
Oracle	State standard and enterprise license for Identity Management application
Data Center Consolidation	
Space Consolidation*	Preparing plan for funding and transitioning consolidation of data centers from 36+ to four
Facilities Management*	Plan to centralize all data center facilities management

*Within scope definition of this report

Summary

All of the models in this report have similar characteristics and foundational success factors.

Characteristics

- All models carry a high degree of risk.
- All models require three to four years to fully implement and seven years to realize benefits.
- The primary savings for all models come from staff reductions.
- All models require significant upfront investment in the first 1-2 years, although options exist to amortize those investments with the external vendor solutions.
- All models require statutory changes and/or changes to employment agreements.
- All models are large and complex initiatives with no simple solutions or short cuts. They require significant change in processes and policies, and will require expertise to execute.
- The savings projections are predicated on the specific assumptions in the models.

Critical Success Factors

- There must be a clear mandate for centralization from top leadership that outlines the goals, expectations and committed resources.
- The State must establish clear priorities in order to choose the most appropriate option from this report or from the many other viable variations.
- There must be a commitment to a long-term strategy (at least seven years) in order to achieve transformation and realize the full value proposition.
- There must be strong and steady leadership at the executive level and clear governance between the central organization and the agencies throughout the transition.
- Execution of any plan in its entirety will be required to realize the anticipated benefits – the State must follow-through on all changes, investments and staff reductions, as outlined, in order to achieve the transformation as described.

Conclusion

The detailed analysis of the State's IT environment that was done for this report provides us a data-driven foundation for understanding the opportunities and pinpointing the challenges ahead of us.

This report frames a discussion for leadership, stakeholders, management and staff on how we can best ensure that information technology plays its ever more important role in improving government.

The study conclusions are consistent with the general position of senior Minnesota government IT managers that improvements in operational costs and performance may well be achieved through consolidation of certain key business functions. The IT community and the Office of Enterprise Technology stand ready to assist leadership in formulating a strategy that will best serve the State of Minnesota.

Appendix 1 – Agencies in Scope

This section identifies the agencies included in the scope of this assessment, which included seventy-five agencies.

Agencies in Scope				
Agency Name	**Number of locations**	**Total Staff and Contractors**	**Total PC Users**	**Scope Comments**
Administration	5	540	446	
AAELSLAGID Boards	1	10	10	Includes Accountancy Board and Architecture / Engineering Boards
Agriculture	100	451	400	
Amateur Sports Commission	1	3	3	
Animal Health Board	20	61	80	
Arts Board	1	9	9	
Asian-Pacific Council	1	4	4	
Bureau of Mediation Services	1	16	13	
Campaign Finance	1	8	8	
Capitol Area A&P Board	1	4	4	
Chicano Latino Affairs	1	5	5	
Commerce	3	349	380	
Corrections	95	4501	4500	
Disability Council	1	8	8	
Economic Development	55	1850	1850	Includes Explore Minnesota Tourism
Education	2	475	475	
Gambling Control Board	4	35	35	
Governor's Office	3	37	37	
Health	11	1425	1425	
Health Licensing Boards	2	261	263	This is a compilation of the following agencies: - Barber/Cosmetologist Examiners Board - Behavioral Health & Therapy Board - Chiropractic Board - Dentistry Board - Dietetic and Nutrition Practice Board - Emergency Medical Services Reg. Bd. - Marriage and Family Therapy Board - Medical Practices Board - Nursing Board - Nursing Home Administration Board - Optometry Board - Pharmacy Board - Physical Therapy Board - Podiatric Medicine Board - Psychology Board - Social Work Board - Veterinary Medicine Board
Human Rights	1	45	45	
Human Services	160	7017	7017	
Iron Range Resources	3	105	105	

Agencies in Scope, continued				
Agency Name	**Number of locations**	**Total Staff and Contractors**	**Total PC Users**	**Scope Comments**
Labor and Industry	58	503	500	Includes the Electricity Board
Minnesota Management & Budget	2	337	337	
Minnesota Pollution Control	12	991	991	
Minnesota Racing Commission	1	17	12	
Minnesota State Lottery	5	145	145	
Minnesota Zoological Garden	1	270	230	
MN State Academies	2	200	460	
Natural Resources	192	2894	2750	
Office of Enterprise Technology	2	336	316	
Office of Higher Education	1	75	75	
Ombudsman for Families	1	5	6	
Ombudsman for MH/DD	5	18	19	
Perpich Center for Arts Education	1	86	356	
Public Safety	119	1987	1976	Includes Peace Officer Standards and Private Detective Boards
Public Utilities Commission	1	48	48	
Revenue	17	1570	1535	Includes Administrative Hearings Office
Transportation	205	5067	4846	
Veterans Home Board	8	1100	600	Includes Veterans Affairs
Water and Soil Resources Board	7	80	80	
Workers' Compensation Court of Appeals	1	13	13	
Totals	1,114	32,961	32,417	

Agencies Excluded

The following agencies were solicited for input, but did not provide a response or were excluded for other reasons.

Agency Name	Scope Comments
Black Minnesotans	No response to data requests
Housing Finance Agency	Incomplete data request
Military Affairs	Excluded due to 100 percent federal funding
Indian Affairs Council	No response to data requests
Public Defense Board	Judicial Branch, out of scope
Tax Court	Judicial Branch, out of scope

Appendix 2 – Benefits, Barriers and Risks

The following charts outline benefits barriers and risks to the three models presented in this report. In addition to those included from Excipio's analysis, this chart includes barriers and risks identified by the State. A more detailed risk analysis would be included in Phase One of an implementation plan.

Primary Model: CENTRALIZATION TO OET		
	Benefits	**Barriers and Risks**
Human Resources	• Least direct impact on state employees • Workforce remains state employees	• Current employee contracts and seniority rules make it difficult to "upgrade" skills and talent as proscribed • Requires culture change and changes in management practice • State workforce lacks experience in effective IT management in a large, centralized environment • Some agencies' IT staff perform additional non-IT functions, which complicates staffing counts and transfers
Quality of Service	• Quality of service improves with standard processes, procedures and service levels • Responsibility for security policy and operations remains a state function	• Quality of service improves less than alternatives • Current and future quality of service not well defined in model • Risk of service disruption is high during Transition Phase • Model does not take advantage of outsourcing particular services for significant quality or cost advantages • Quality of service would not improve until transformation has occurred (3-4 years) • State agency end-users accustomed to local support may register lowered customer satisfaction in a centralized model • Service level requirements may vary depending on the size of the agency • Requires the standardization to and purchase of enterprise tools to meet industry norms and standards • OET must earn customer trust in its capabilities to manage a central service organization and meet service requirements
Finances	• Realizes significant savings through staff reductions and increased efficiencies	• Savings are based almost entirely on staff reductions and replacements that, for the most part, cannot be achieved under current contracts and statutory rules • Prescribed salary cuts must undergo contract negotiations • Not all savings are "capturable," i.e., savings from federal and other special dollars cannot be used for transition costs/capital investment • Upfront investment high in first two years; difficulty in securing necessary upfront investment makes full implementation and projected results difficult • Transfer of funding for State staff will be difficult and complicated and may result in additional costs to individual agencies during implementation; special funds (federal, etc.,) may not be directly transferable
Governance	• State retains decision-making and flexibility • State IT leadership understands government business functions and requirements • Data center consolidation model similar to strategy already underway under current governance	• State decision-making can slow service delivery and improvements

Implementation	• State managers understand government business functions and requirements	• Model moves all current employees to OET before transformation in processes and service levels occur; increasing financial liability and management risks of the central organization • Implementation is more difficult than other options because it requires culture, management, governance, tools and process changes to be managed from within • 1-2 year implementation is an aggressive timeline given the need to change law and find upfront investment dollars • Complexity of changes and length of time to implement represent major risk to successful results in service quality and savings

Alternative 1: FULL OUTSOURCING		
	Benefits	**Barriers and Risks**
Human Resources	• Outsourcers are assumed to have appropriate skill sets, processes and resources to maximize efficiencies quickly • All state employees will be moved to outsourcer for minimum of one year	• Major impact on State employees • State statute needs to be modified to permit outsourcing of IT services in cases where State services cannot compete in cost or quality of service (e.g., Minnesota Statutes sections 16C.08, subdivisions 2(b)(1) and 2(b)(8), 16C.09(a)(1),and 43A.047) • Contractor expectations, processes and procedures may be more demanding and job responsibilities may change for individual state employees • State does not currently have expertise in managing large and complex contracts of this nature • There is no qualitative data that shows state employees are less professional or skilled than private outsource staff
Quality of Service	• Quality of service improves with vendor expertise, standard processes, tools, and procedures, and service level management • State would maintain Security policy staff	• Security operations would be out of State's management and control • State must negotiate contract very carefully to avoid quality of service issues experienced by other states • Likelihood of some service disruption during transition, probably low impact • Current and future quality of service not well defined in model • State agency end-users accustomed to local support may register lowered customer satisfaction in an outsourced model • Service level requirements may vary depending on the size of the agency • Business leadership may have trust issues with external service providers
Finances	• Transition costs can be amortized over the length of the contract, making implementation more affordable • Service pricing is set for agencies by the vendor and requires less State planning for a costing and pricing strategy	• The requirement to retain all state employees for one year doubles the transition costs • Much of the savings are based on staff reductions • Not all savings are "capturable," i.e., savings from federal and other special dollars cannot be used for transition costs/capital investment • Exit strategy from contract can be extremely costly • Financial model is based on market survey with specific vendors; results are based on limited data
Governance	• State retains liaison responsibility with agency business leaders	• Vendors may not have sufficient understanding of government operations and stakeholder restraints and priorities • Agencies must have meaningful input into service level agreements, customer satisfaction measures and vendor contract terms
Implementation	• Vendor has experience implementing quickly and professionally; processes and procedures are in place	• Requires a long-term commitment in order to attract a vendor and realize savings • Contract negotiation and management is crucial for a successful outcome • Requires a strong exit strategy for unsatisfactory service • 1-2 year implementation is an aggressive timeline given the need to change law and find upfront investment dollars • Complexity of changes and length of time to implement represent major risk to successful results in service quality and savings

Alternative 2: HYBRID OPTION		
	Benefits	**Barriers and Risks**
Human Resources	• Major outsourcers are assumed to have appropriate skill sets, processes and resources to maximize efficiencies and improve service • All state employees will be moved to outsourcer for minimum of one year	• Major impact on state employees • State statute needs to be modified to permit outsourcing of IT services in cases where State services cannot compete in cost or quality of service (e.g., Minnesota Statutes sections 16C.08, subdivisions 2(b)(1) and 2(b)(8), 16C.09(a)(1),and 43A.047) • Contractor expectations, processes and procedures may be more demanding and job responsibilities may change for individual state employees • The State does not currently have expertise in managing large and complex contracts of this nature • There is no qualitative data that shows state employees are less professional or skilled than private outsource staff
Quality of Service	• Quality of service improves with vendor expertise, standard processes, tools, and procedures, and service level management • Model takes advantage of the specialized skills of several vendors • This option is flexible enough to expand to more than 2 vendors, depending on the State's needs and a vendor's expertise resources • State would maintain Security policy and operations management	• State must negotiate contract very carefully to avoid quality of service issues experienced by other states • Likelihood of some service disruption during transition, probably low impact • Current and future quality of service not well defined in model • State agency end-users accustomed to local support may register lowered customer satisfaction in a centralized model • Service level requirements may vary depending on the size of the agency • Business leadership may have trust issues with external service providers
Finances	• Transition costs can be amortized over the length of the contract, making implementation more affordable • Financial risk spread across two vendors	• The requirement to retain all state employees for one year doubles the transition costs • Not all savings are "capturable," i.e., savings from federal and other special dollars cannot be used for transition costs/capital investment • Exit strategy from contract can be extremely costly • Financial model based on market survey with specific vendors; results are based on limited data
Governance	• State retains liaison responsibility with agency business leaders	• Vendors may not have sufficient understanding of government operations and stakeholder restraints and priorities • Agencies must have meaningful input into service level agreements, customer satisfaction measures and vendor contract terms
Implementation	• Vendors have experience implementing quickly and professionally; processes and procedures are in place	• Requires a long-term commitment in order to attract a vendor and realize savings • Contract negotiation and management is crucial for a successful outcome • Requires a strong exit strategy for unsatisfactory service • 1-2 year implementation is an aggressive timeline given the need to change law and find upfront investment dollars • Complexity of changes and length of time to implement represent major risk to successful results in service quality and savings