MINNESOTA iGOV

A report by the State Chief Information Officer Gopal Khanna

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EXECUTIVE SUMMARY

"How we manage information technology will be one of the key issues for government in the coming decades. The notion that future generations are going to accept government as it has functioned in the past is ridiculous. We can either wait for circumstances to overtake us or we can get out in front and lead."

- Governor Tim Pawlenty, May 2009

This document presents a two-year plan to enable better and more efficient government. The purpose of the plan is to lay the groundwork for a more stable, secure and function-rich IT infrastructure for the state; to better align technologies with agency business needs; and to integrate technologies and services at best cost and value for the state.

The goals of the plan are not new. They have been well articulated in the State of Minnesota's ten-year Enterprise IT Master Plan, and reinforce many efforts already underway.

However, current fiscal challenges and their implications for the future make a clearly defined, aggressive program of improvements to the state's IT infrastructure more imperative than ever. Minnesota iGov builds on the creation of enterprise governance and the organizational restructuring of the past few years. It also takes advantage of new technologies and emerging best practices to pull together a number of enterprise projects—many of which are already under way—and adds additional context and specificity that allow for a statewide approach to planning, communication and execution. Without a cohesive and consistent strategy for managing its resources, Minnesota cannot address the compelling need for government reform within the urgent time frame and financial constraints under which we now operate.

Minnesota iGov Initiatives

Minnesota iGov focuses specifically on the following two crucial areas of information management, and outlines a set of initiatives within the categories shown below. While each individual initiative is important in its own right, it is the strategic phasing of all seven that will result in an efficient, effective, stable and secure environment that delivers IT solutions to the business of the state.

Initiatives I-IV: Foundational Building Blocks

- iGov Initiative I: Standards and Enterprise Asset Procurement
- iGov Initiative II: Architecture
- iGov Initiative III: Project and Portfolio Management
- iGov Initiative IV: Information Security Tools and Services

Initiatives V-VII: Efficient IT Service Delivery

- iGov Initiative V: Unified Communication and Collaboration
- iGov Initiative VI: *e*-Licensing
- iGov Initiative VII: Data Center Facilities and Operations

Minnesota iGov recognizes the following important tenets:

- Citizens have expectations of data and services that are secure, accessible in real-time and locally available.
- Information is one of the state's most important assets. Proper management of this vital asset results in better government, and is only possible through effective deployment of information technology (IT).
- The act of consolidating IT systems is an extraordinary opportunity to change (and improve) fundamental business operations. Often flagged as a "cost center," IT operations are, in fact, a program that should be thought of as a resource center that provides an opportunity for and an investment in more effective and efficient government.

When fully implemented, the Minnesota iGov plan results in a variety of benefits to the state:

- State agencies can focus on their core business objectives.
- State IT capabilities will be faster and better able to support the services that citizens need.
- The state will avoid costs, improve government operations, and ultimately provide citizens with better services.
- Some citizen services will be directly enhanced, while many others will see "back office" productivity improvements.
- The state will improve its ability to develop long-term strategies and prioritize investments that best serve the enterprise as a whole.
- Accountability for enterprise direction will improve at the individual agency level.
- The state will improve its security posture.
- Greater accountability and transparency to citizens will be possible through the use of new technologies.

ENTERPRISE OUTCOMES

In order to continue excellent service in times of financial uncertainty and high citizen expectations, the State of Minnesota must maximize the technology that enables government. Through collaborative, consultative management of consolidated IT resources, the state will be better able to plan and execute a 21st century model of more efficient and effective government where technology solutions will play an ever greater role in the business of the state.

	Before	After	Outcome
Government Service Delivery	20th century, paper-based, manually intensive, and dependent on large centralized workforce.	Web-based and automated business processes enabled by new technologies and a more efficient and mobile workforce.	**Improvements in government services and communication through strategic deployment of new technologies, serving citizens anytime, anywhere.**
IT Environment	Siloed planning, funding, and lack of standards resulting in inefficient deployment of state IT resources, unnecessary redundancy, insufficient security, and systems that cannot work together.	Effective enterprise-level planning and standards, and effective investment in high-value enterprise solutions.	**Improved IT environment through strategic consolidation of systems and resources.**
Technology Investment	Ineffective portfolio management and oversight due to lack of resources and clarity of governance, resulting in inefficiencies and missed opportunities.	Effective portfolio management with clear governance, processes and accountability. A common state architecture that improves technical delivery and lowers the state's total cost of ownership. Reductions in complexity, enhanced efficiency, eliminated redundancies, and controlled IT spend.	**Government that stretches its dollars and improves its effectiveness by making smart technology investments.**
Information Security	Lack of standard data and security policies.	Statewide information security policies and standards; appropriate tools for security management.	**Information assets are better protected from unauthorized disclosure, theft, loss, destruction, and alteration.**

THE VISION

Objectives

The Minnesota iGov plan is designed to meet the following objectives for the enterprise:

- **Stronger infrastructure**. Provide a more stable, secure and function-rich IT infrastructure for the state. Coordinate and develop statewide standardized approaches for implementing technologies and services, matching resiliency with improved capability to react appropriately to market and technology innovations.
- **Partnerships for better business results.** Align technologies with agency business needs to achieve better results. Lead and collaborate with other governmental entities to discover, assess, adapt, implement and utilize information technologies consistent with business needs. Provide responsive, expeditious and reliable customer service.
- **Integrated technologies and services at best cost and value.** Plan and prioritize IT investments for maximum leveraged impact and highest collective value; determine the most cost-effective means of providing the state with high quality, responsive and reliable IT services on a service-by-service basis, considering all service delivery options; manage quality services and technologies—regardless of sourcing—for state agencies at or below competitive market prices.
- **Accountability.** Improve accountability to stakeholders and citizens through new information technologies; provide better accountability for IT management through improved project and portfolio management practices.

Key Values

The name of this plan – Minnesota iGov – represents the vision and value of its collective initiatives. Not only does the "i" in iGov evoke a prevalent communications tool for what Governor Pawlenty calls "the iPod generation," it stands for one of government's most important assets in the 21st century – information. How we manage information, and how we invest in the tools that make information safe and available, is the primary role of IT management and one of our greatest challenges. Many other "i" values are also evoked by the name of this plan:

Intelligent...

as in smart and deliberative IT management

Infrastructure...

the back-office foundational IT services that make electronic government possible

Internet...

a key infrastructure element that must be accessed safely and reliably to enable e-government

Intuitive...

a goal of all e-government service delivery to the end-user

Innovative...

a key ingredient to finding effective solutions in challenging times

Integrated...

the goal of a well-designed infrastructure, capable of cost-effective and secure service delivery

In addition to its name, Minnesota iGov builds on a set of key values.

Cyber security and disaster preparedness. Effective security will be a goal of every initiative. Enterprise-wide security policies and standards will, for example, establish the requirements necessary to protect individual IT systems and applications from harm's way and give senior leadership the tools to understand what risks are the most critical to address. This will protect state data and private citizen information and improve the state's ability to recover quickly in case of a disaster. Data center consolidation, in addition to reducing redundant infrastructure and increasing energy efficiency, will make it easier to provide physical and cyber security protection to much of the state's information assets by bringing them into shared, highly secure and well-monitored facilities.

Facilitating e-government solutions. The underlying purpose of all iGov initiatives is to build a business environment in which communications with, and service to, the citizen is enhanced through electronic tools (e-government). Common standards, architecture, and security policies create an agile environment capable of deploying the necessary tools; collaborative service development projects bring the tools to government at a more affordable price.

Green IT. All initiatives included in this plan will factor in environmentally sound practices to ensure the green IT of the future. For example, the plan for data center consolidation offers a unique window of opportunity to evaluate and redefine green practices as facilities and equipment are consolidated.

Collaboration and partnership. An effective governance structure depends on decisions and activity at the agency level being coordinated and standardized, in keeping with enterprise direction and activity. This requires strong governance that builds measurable accountability and reporting into its processes and structure. IT requires active participation of the technology, business and financial leadership of our partners in order to create an IT environment that serves the business of the state. Governance ensures sufficient input and oversight from the enterprise community necessary to carefully craft and implement initiatives that meet the overall needs of the enterprise and serve the needs of individual agency customers.

THE PLAN

Foundations

Direction from the Legislature and the Governor

The seeds of this strategic plan were formed in the 2005 legislation and the preceding Executive Order 05-04 that established a governance role and directive to the State Chief Information Officer to "manage the Information Technology ("IT") resources of the State, develop and implement policies, procedures, and standards ensuring the optimal leveraging of IT across the state enterprise, and manage consistency and efficiency in IT activities including standardization of policies, procedures, data, and tools."

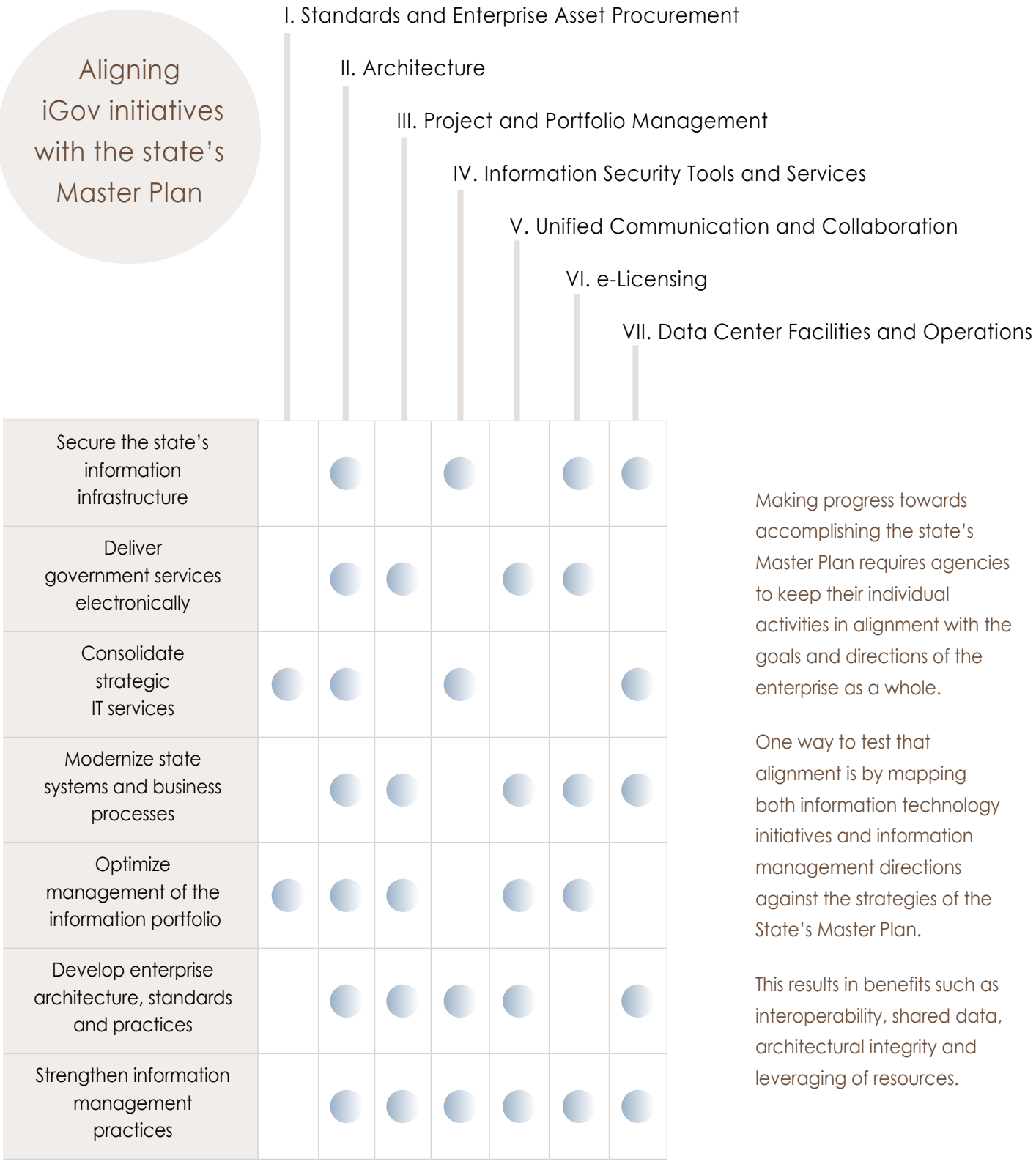
State of Minnesota Information and Telecommunications Technology Master Plan 2009

The State of Minnesota Information and Telecommunications Technology Systems and Services Master Plan is a high-level strategic document revised biennially for the Governor and the Minnesota Legislature. The Master Plan, formulated with input from executive branch agencies, provides a ten-year vision and strategic direction for management of and investment in the state's information technology infrastructure. Minnesota iGov is based on the strategies and priorities outlined in the Master Plan, providing the next level of detailed strategy necessary to move the vision forward. iGov's two-year program is designed to result in proactive implementation of the Master Plan.

Master Plan Strategies

- Secure the state's information infrastructure
- Deliver government services electronically
- Consolidate strategic IT services
- Modernize state systems and business processes
- Optimize management of the information portfolio
- Develop and follow a comprehensive, enterprise-wide information architecture and accompanying standards and practices
- Strengthen information management practices

Aligning iGov initiatives with the state's Master Plan



Making progress towards accomplishing the state's Master Plan requires agencies to keep their individual activities in alignment with the goals and directions of the enterprise as a whole.

One way to test that alignment is by mapping both information technology initiatives and information management directions against the strategies of the State's Master Plan.

This results in benefits such as interoperability, shared data, architectural integrity and leveraging of resources.

The Seven iGov Initiatives

Minnesota iGov focuses specifically on the following two crucial areas of information management, and outlines a set of initiatives within the categories shown below. While each individual initiative is important in its own right, it is the strategic phasing of all seven that will result in an efficient, effective, stable and secure environment that delivers IT solutions to the business of the state.

Initiatives I-IV: Foundational Building Blocks

These initiatives address the systematic development of standards and policies for designing, procuring and managing IT, and address the risks to the state's information assets.

Although vital to the effective management of a complex IT environment like the State of Minnesota, these elements commonly do not garner attention beyond the IT community. Yet they have the biggest impact on our capability to manage the costs and risks associated with the state's information assets. They are foundational to the state's ability to deliver IT solutions and to afford the technology investments that will, inevitably, be necessary to governing in the future.

iGov Initiative I: Standards and Enterprise Asset Procurement

iGov Initiative II: Architecture

iGov Initiative III: Project and Portfolio Management

iGov Initiative IV: Information Security Tools and Services

Initiatives V-VII: Efficient IT Service Delivery

These initiatives focus on IT services and tools that are more visible beyond the IT community, i.e., the government employee who uses the tools, the stakeholder who prioritizes and delivers programs, and the citizen who consumes government services and increasingly demands e-government delivery.

iGov Initiative V: Unified Communication and Collaboration

iGov Initiative VI: e-Licensing

iGov Initiative VII: Data Center Facilities and Operations

Initiative Highlights

For the most part, iGov is a formalization and bundling of existing enterprise initiatives, with specific outcomes and timelines added for fast action and accountability. However, contained within the plan are some exciting **new** opportunities and approaches that will make the State of Minnesota a leader in IT management.

- A Minnesota data center consolidation project that includes government entities beyond the executive branch
- An unprecedented single enterprise Microsoft license for the executive branch
- A centralized tool that will allow easy online purchasing of standard IT products, greatly simplifying agency IT purchasing
- A single executive branch email system
- A thorough enterprise IT assessment that will allow the executive branch to benchmark its current state and identify the most beneficial improvements

Preparation

Study for the Legislature and Benchmark IT Assessment

2009 legislation (Chapter 101/Senate File 2082, Article 2, Section 105) requires OET to report to the Legislature by July 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 cost 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."

The legislation requires state agencies to participate and provide information necessary for the analysis.

An analysis of the current IT environment within the executive branch assessment is necessary to meet the legislative requirement, but it also offers us the opportunity to use the baseline data for iGov initiative planning. The assessment will collect at the agency level information on life-cycle total costs of ownership, refresh cycles, current performance metrics and portfolio data on applications, platforms, data bases and operating systems.

The assessment will include a combination of:

- Technology-based inventories of hardware, networks and software
- Reviews of department funds and accounts, applications portfolios, staff assignments, budgets, organization charts and contractors to provide an understanding of the human and financial resources involved in IT management
- Important projects and prospective initiatives
- Agency IT alignment, planning, and portfolio management practices.

In particular, the assessment will examine:

- Information system development, implementation, modification and maintenance
- Hardware, software and utility service offerings, including upgrading, replacement and maintenance
- Application and technical problem resolution, support and maintenance of desktop, office systems and end-user workstations
- Maintenance, facilities and operations of data centers
- Maintenance and operations of data networks, both WAN and LAN
- Business continuation and recovery facilities and assets.

Tactical Planning for iGov Initiatives

Tactical planning for each initiative will be the responsibility of individual OET executives with assistance from the appropriate governance bodies and working teams set up for the initiative.

Evaluation of Current Centralized Services

Minnesota iGov outlines the over-arching strategies and priority tactics that will be used to meet the objectives and vision of the IT Master Plan, and focuses on enterprise initiatives.

However, during this same two-year period, OET will evaluate and recommend additional service improvements to the IT services it provides on a shared or centralized basis. In 2009-2010, OET, with input from its governance partners, will conduct an in-depth analysis and create a service strategy for each of its IT services. Each service strategy will include:

- **Service level expectations**: What levels of service are necessary to meet the needs of the executive branch, and what metrics should be in place to measure performance?
- **Market and cost analysis:** What is the price of a given service in the open marketplace compared to the cost of solutions currently being offered by an internal service? What strategies will bring out-of-line costs and pricing down? How might the service be better structured or sourced to make it competitive?
- **Appropriate bundling and packaging:** How best can service components be bundled to be of most use to customers with different needs and profiles?

- **Usage forecasts:** What are the predictable consumption levels of a particular service, and does the volume make a service viable financially?
- **Sourcing recommendation:** What is the best way for the state to provide and consume a particular IT service, given a variety of factors, including pricing, security risks, quality of service, total cost of ownership, etc.?
  - **In-sourcing**: When the Office of Enterprise Technology or another state agency has the capacity, resources and expertise to provide competitive services from within state government, in-sourcing is the appropriate option. This option can be used for either shared services (more than one agency performing similar functions and utilizing shared tools) or utility services (consolidation to a single solution for all agencies).
  - **Outsourcing**: When the marketplace is able to meet state needs for a consolidated service better than internal resources, i.e., at a more competitive price and an acceptable level of service and security, the state will utilize the resources of an external organization or organizations to provision an IT service.
  - **Co-sourcing**: Co-sourcing — the combination of in-sourcing and outsourcing to provide complete service — is a viable option to complement certain service components offered internally. Co-sourcing includes leasing options.
  - **Partnership or multi-sourcing**: This is a formal arrangement between two or more organizations to work together to provide a service. This option can be used for complex or geographically widespread systems that require more than one state and/or private partner in order to provide a fully integrated service.

The analyses and recommendations will be completed in time to develop the service catalog and consolidation strategy for FY2011 (Spring 2010). Agencies and other customers will play a crucial role in the service analysis through a **Service Strategy Team** (see page13). The service analysis for FY11 will serve as a baseline for service strategy and metrics as services are reviewed on an annual basis.

Continued Improvement at OET

For the past year, the Office of Enterprise Technology has undergone a thorough reorganization to better manage the services it provides. A new Customer and Service Management Program is driving significant process change in the areas of customer relations, service management and service desk. Reorganization efforts continue and will make the organization better prepared for the responsibilities outlined in this strategic plan. OET Change Project efforts now focus on:

- Evaluation and reorganization of the Technology Management program area
- ITIL process and tools implementation
- Evaluation and reorganization of financial processes and organization
- New costing models for OET services

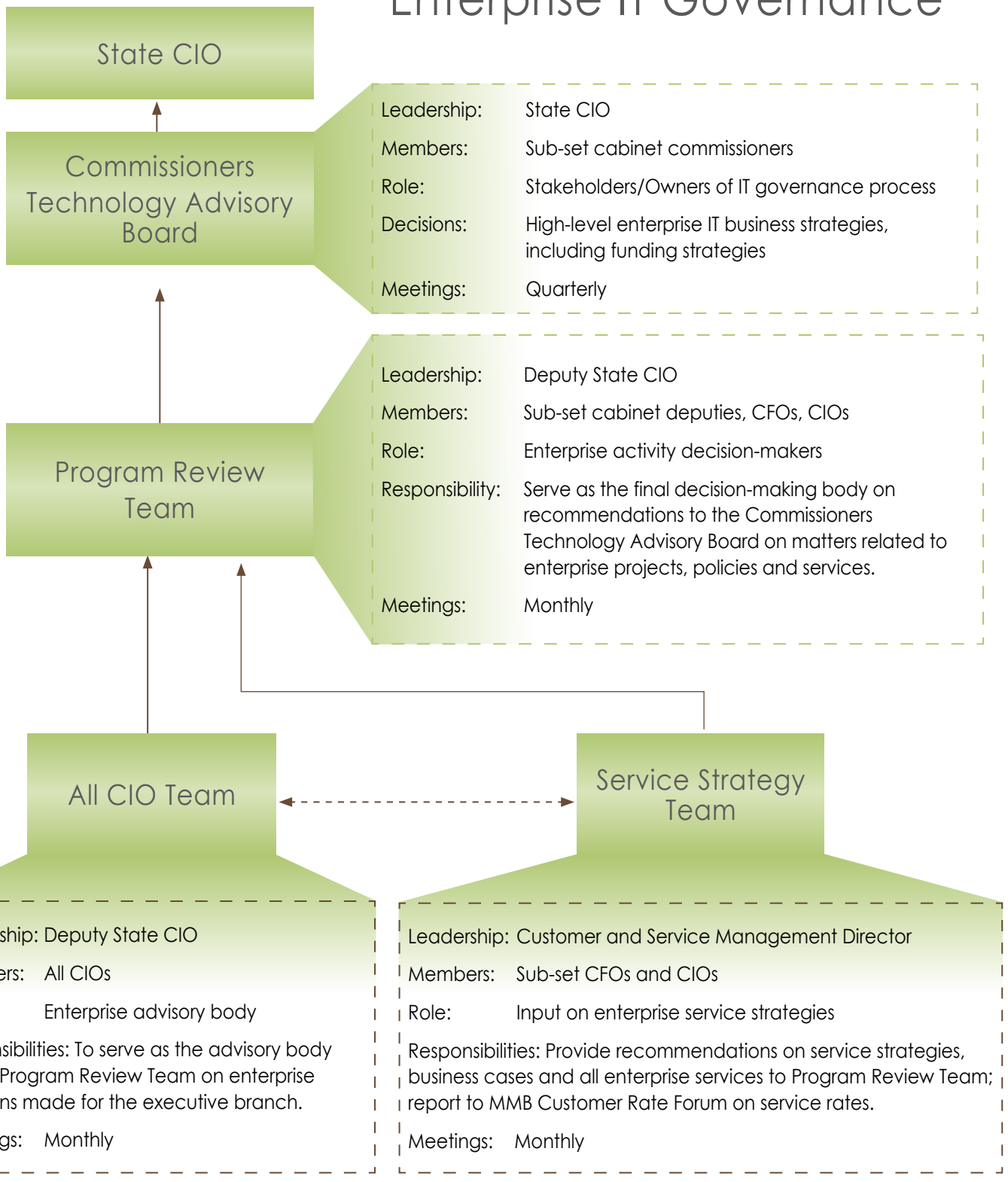
Governance

The purpose of an overall governance process in a consolidated IT environment is to ensure that IT decisions are made within a framework of the state's business needs. The governance structure must:

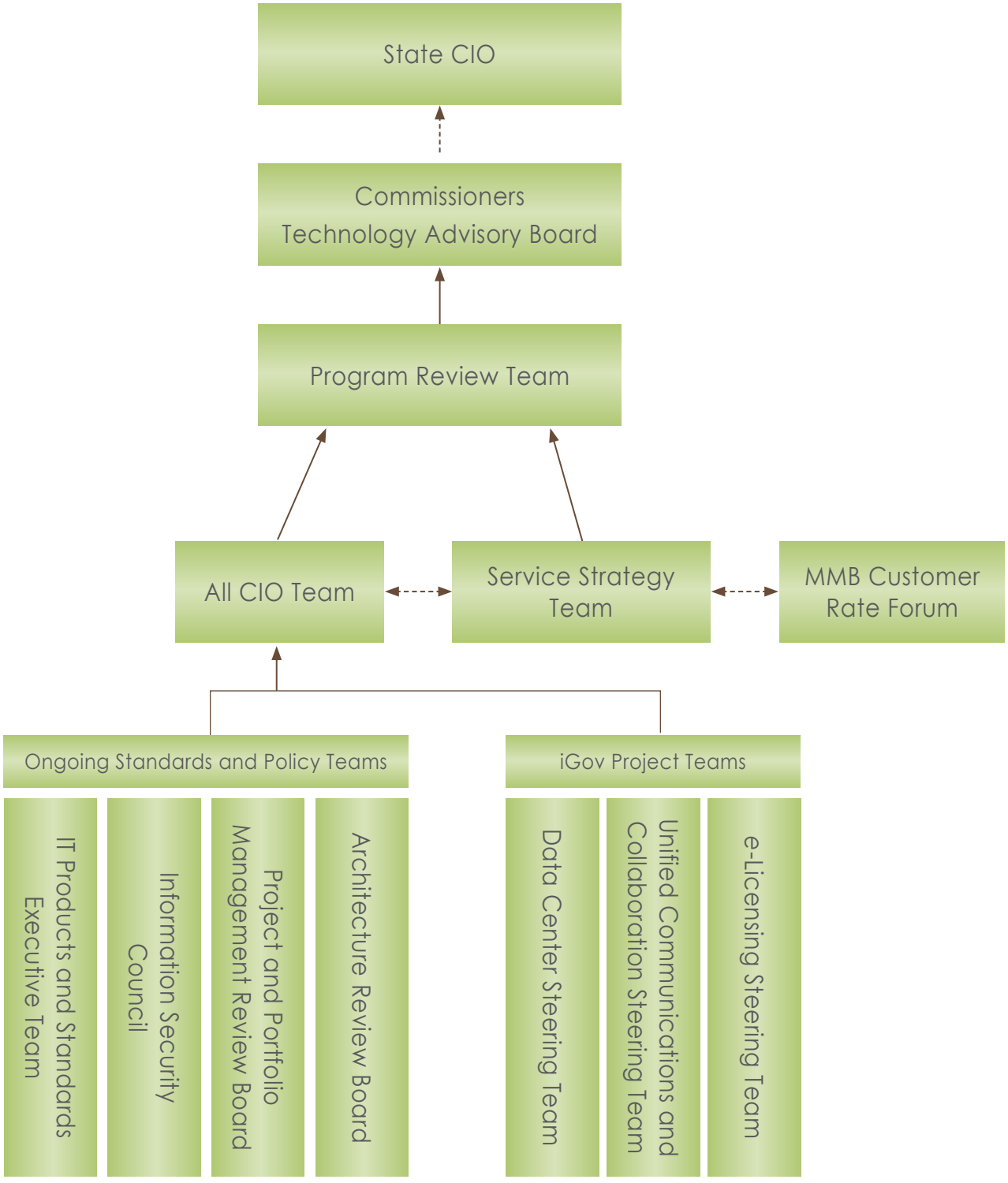
1. Ensure that the state prioritizes and builds a digital infrastructure to meet the business of state government.
2. Bring together the technology, finance and business interests of the state.

To ensure broad business input at every level of IT development and decision-making, the following key IT governance roles will be established to help the State CIO manage priorities, set standards, determine appropriate investments, and manage resources.

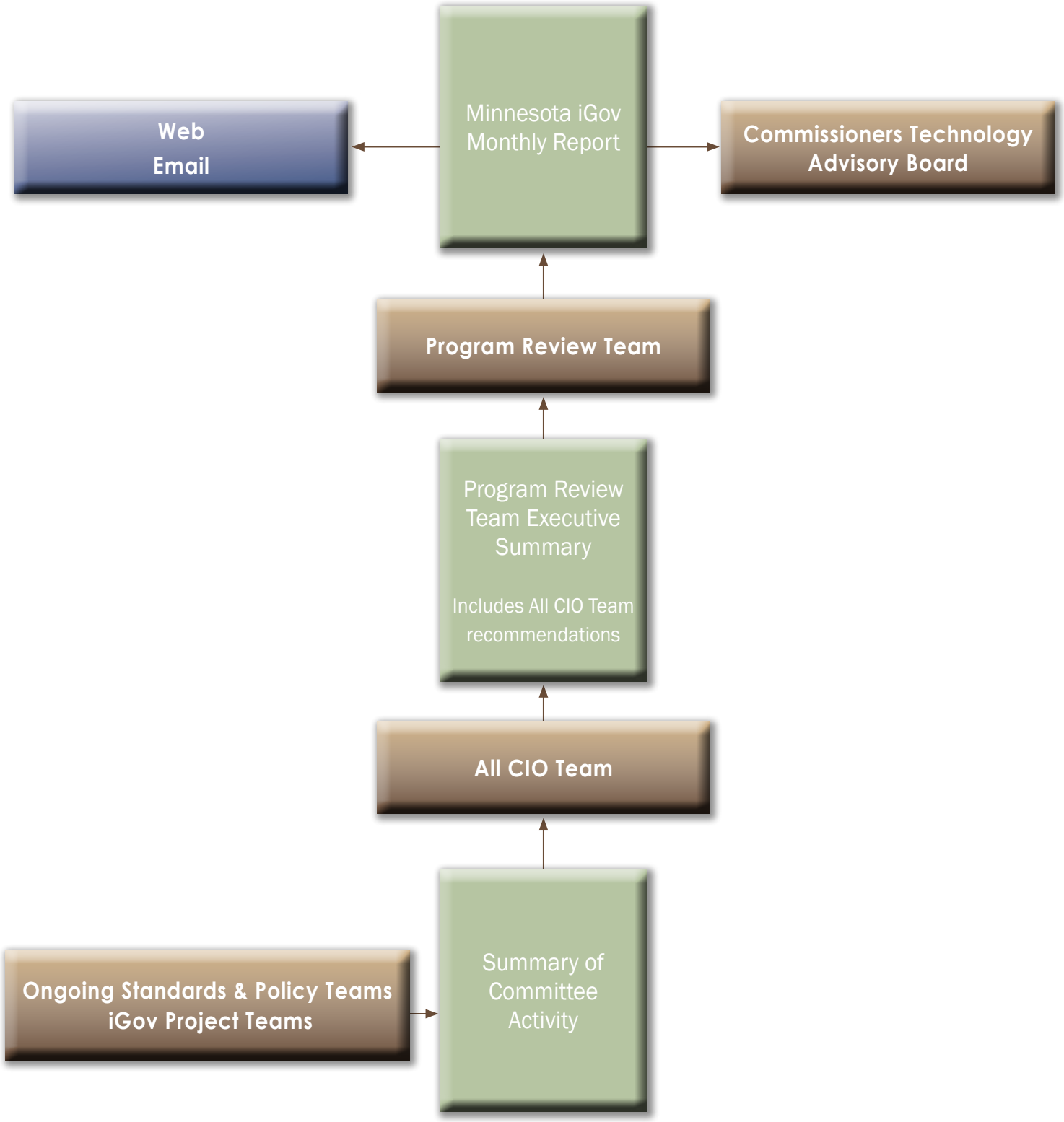
Enterprise IT Governance



Expanded Enterprise IT Governance



Minnesota iGov Communications Plan



Initiative I

STANDARDS AND ENTERPRISE ASSET PROCUREMENT

"IT procurement will conform to established architectural and procurement standards, with cost containment achieved through common processes of acquisition and asset management. Funding and resource management, in turn, will identify and manage life-cycle costs and total cost of ownership for systems investments."

- State of Minnesota Information and Telecommunications Technology Master Plan 2009

Background: Standardized IT products and services enable the state to realize significant cost avoidance in hardware purchasing and software licensing, and provide guidelines for the development of future applications. By setting standards and negotiating purchasing contracts based on those standards, the state can significantly decrease the cost of IT assets and investments and positively impact total cost of ownership. This is one of the important and significant opportunities for consolidation benefits in the field of information technology.

Five-Year Goals

- Consistent and highly leveraged IT sourcing maximizes the "bang for the IT buck" at the individual customer level so that focus and dollars can address program needs and priorities.
- Savings from strategic sourcing are captured and reinvested to secure and modernize Minnesota state government's digital infrastructure.

Sourcing Model: An in-sourcing model for managing procurement is anticipated. However, research is currently under way to determine whether an outsourcing standard-setting model might be viable.

The Approach: A centralized function that leverages the unified purchasing power of state government by aggressively setting standards for all information technology products, including hardware, software, and professional/technical contracts.

Anticipated Outcomes

- Enterprise standards enable enterprise hardware and software agreements that result in significant cost benefits.
- Standards lower the state's total cost of ownership for technical assets and resources.
- The drive toward simplicity via minimized variability reduces products and offerings, making for simplified and lower-cost operations across state government.
- Standards result in a common architecture that improves technical delivery and lowers the cost of building large systems.
- Fewer options save research and deployment time, resulting in compressed solution implementation time frames.

Standards and Enterprise Asset Procurement Initiatives (2009-2010)

Highlight Initiatives

1. **Standard-setting and contract negotiation**: Continue and expand standard-setting categories to include professional and technical standard contracts; negotiate enterprise agreements for standard products, including a single executive branch license for Microsoft applications. The Microsoft Enterprise Agreement (EA) will bring down the license cost to all state departments and agencies, and will simplify software acquisition and management. The EA will enable 32,000 executive branch software users to utilize the entire suite of Microsoft products – with the benefit of uniform upgrades – for the same price the state paid for only approximately 10,000 users in 2008. In addition to the immediate cost savings for state agencies, the EA will eliminate mismatched versions of commonly used software programs and end executive branch compatibility difficulties that had previously existed. State agencies will also avoid running afoul of software license renewal and compliance issues that smaller departments were sometimes unable to afford or larger departments overlooked.
2. **Automated Ordering**: Establish a "point and click" order fulfillment portal website to be used by all agencies to order/purchase IT.

Core Initiatives

1. **Policy changes**: Establish new policies for standards requirements.
2. **Communications and awareness**: Increase standards compliance among agencies and the leveraging of contracts by other Minnesota government entities through an ongoing communications and awareness campaign.

Standard Setting and Contract Negotiation		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Finalize Microsoft licensing agreement • Develop standards and contracts for professional technical contractors	1. Microsoft licensing agreement for executive branch 2. ESRI licensing agreement for executive branch 3. Launch of professional/technical standards program (ASAP-IT)
2009 QTR 4		
2010 QTR 1	• Complete Implementation of Microsoft licensing agreement	
2010 QTR 2	• Decide on in-source or outsource model for standard-setting functions and activities • Establish performance metrics and reporting process • Establish six software standards	4. Resource and management plan for standard-setting activity 5. Performance metrics program
2010 QTR 3	• Continue professional technical standards setting • Negotiate additional enterprise agreements for hardware/software	6. Additional enterprise agreements with specific vendors for standard hardware and software
2010 QTR 4	• Implement network and hardware standards • Complete professional technical standards setting	7. Complete network and hardware standards 8. Complete software standards 9. Full professional/technical standards program

Governance: The State Chief Information Officer will approve final standards as recommended by the enterprise governance structure. The Commissioner of Administration will approve final contracts. The IT governing bodies will manage enforcement of the standards.

IT Products and Standards Executive Team: The IT Products and Standards Executive Team will continue to manage procurement and standard-setting activity. Current working teams will continue to review and propose standards, and participate in information gathering and vendor negotiations. Representation on all teams includes executive branch and other government entities.

OET Responsibilities: The Office of Enterprise Technology coordinates the research, standard-setting and contract negotiation process in collaboration with the Department of Administration's Materials Management Division, and established governance committees.

Agency Responsibilities: Participation in standard-setting committees is voluntary. All executive branch entities are required to follow the established standards when purchasing hardware, software and professional technical contracts.

Automated Ordering		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3		
2009 QTR 4		
2010 QTR 1	• Plan and source an automated fulfillment tool for IT product purchasing	1. Installed and piloted interactive fulfillment tool
2010 QTR 2	• Pilot the tool online	
2010 QTR 3	• Develop and implement the tool for hardware standards	2. Tool in operation for all standard products and services
2010 QTR 4	• Implement tool for all standardized hardware, software and P/T services	

OET Responsibilities: The Office of Enterprise Technology will develop the automated procurement system in collaboration with the Department of Administration's Materials Management Division.

Agency Responsibilities: Assistance with pilot project implementation and ordering process delineation.

Policy Changes		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3		
2009 QTR 4		
2010 QTR 1	• Develop current IT spend analysis • Draft policy	
2010 QTR 2	• Vet policy with governance bodies and agency leadership	1. Governance approval of new policies related to IT standards
2010 QTR 3	• Implement policy	2. Published IT standards policy for executive branch
2010 QTR 4		

Governance: The State Chief Information Officer will approve policies with input from IT governance bodies.

OET Responsibilities: OET will conduct research, draft policies, manage the governance process and publish the results. Final approval of state policies rests with the State Chief Information Officer after input from the Commissioners Technology Advisory Board.

Agency Responsibilities: Participation in policy-setting committees is voluntary. All executive branch entities are required to follow the established standards policies.

Communications and Awareness		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Develop a communications and awareness plan to increase executive branch compliance and non-executive branch participation	1. Communications and awareness plan for standards activity completed
2009 QTR 4		
2010 QTR 1	• Begin implementation of plan	2. Capture customer information
2010 QTR 2		
2010 QTR 3	• Continue awareness campaign	3. Continue awareness campaign
2010 QTR 4	• Continue awareness campaign	4. Continue awareness campaign

OET Responsibilities: OET will develop and administer the Communications and Awareness plan.

Agency Responsibilities: None.

Initiative II

ARCHITECTURE

"[The state will] Develop and follow a comprehensive, enterprise-wide information architecture and accompanying standards and practices. We will establish and mandate use of enterprise tools to guide design, development, and operation of IT systems to enable appropriate interoperability and information sharing."

"Effective information life-cycle management practices and tools will ensure that government data is easily accessible, secured, and efficiently managed. Essential data elements with common definition and broad application across the enterprise will be managed centrally for mutual benefit and shared securely across business functions. The public and their representatives will be confident that their data is protected and used appropriately."

- State of Minnesota Information and Telecommunications Technology Master Plan 2009

Background: Architecture provides the standards and framework for successful IT solutions. A common architecture or "blueprint" of the policies, standards, guidelines and processes for information, technical and data design elements makes it possible for the state to design IT systems that can interact effectively, work efficiently, and maintain security standards. Setting architectural standards brings down the cost of large systems by dictating common elements and features, and by standardizing the infrastructure's hardware and software. As in physical buildings, the architecture of information technology systems determines the way in which the design will meet the functional requirements (business needs), the relative cost of building the system, and how well the system will withstand the elements. Architecture is a vital foundation for the deployment of any new IT investment. A common architecture is essential to successful consolidation activity.

Five-Year Goal

Establishment of an enterprise approach for IT systems design, including:

- Policies
- Standards
- Guidelines
- Reference architecture
- Processes
- Compliance limitations on types of supported hardware and software
- Compliance with the federal-state-local continuum of enterprise architecture

The Approach: Create an enterprise approach that ensures systems are managed in conjunction with the portfolio management process as a critical part of governance.

Anticipated Outcomes

- Reductions in complexity and cost to build and maintain systems
- Performance, reliability and security improvements to network infrastructure
- Enhanced efficiency and scalability to meet future demands
- Maximized performance of existing devices
- Support of advanced communications
- Realization of business value through strategic alignment and service optimization
- Redundancies eliminated
- IT spend controlled

Architecture Initiatives (2009-2010)

1. **Enterprise Architectural Program:** Establish, create and maintain governance, policies, standards, guidelines, and reference architecture.
2. **Process Implementation:** Design, implement and integrate the human processes required to realize the benefits and value proposition of the architecture program.
3. **Performance Model:** Define expectations, metrics and methodology that drive continuous quality improvement.

Enterprise Architectural Program		
	Quarterly Goals	**Six-Month Milestones/Deliverables**
2009 QTR 3	• Establish the EA program; secure executive sponsorship • Define scope and approach • Establish state EA governance • Identify policies, standards and guidelines that support Master Plan; create, vet and publish the findings • Implement EA framework, methodologies and working tools	1. Program and risk management plan 2. Tool assessment 3. EA framework and methodologies definition 4. State EA governance board established 5. State enterprise architecture, DNS, and information management policy standards and guidelines 6. Working tool set with initial data population and baseline output; recommendations for action
2009 QTR 4	• Generate development plans for each key component of the EA program (Business and service model, Information, Technical, Application, Security architectures) • Analysis and recommendations for OET EA improvement	
2010 QTR 1	• Vet V.1 of the reference architecture • Prioritize EA focus for the next reference architecture cycle	7. V.1 of the reference architecture, performance-based priority set 8. EA web presence with supporting material 9. Risk assessment V.1
2010 QTR 2	• Approve V.1 of the reference architecture • Establish EA website presence	
2010 QTR 3	• Prioritize EA focus for the next reference architecture cycle	10. V.2 of the reference architecture 11. Change management process and release cycle established
2010 QTR 4	• Establish formal EA program change management process and release cycle • Enhance capability maturity based on performance input and program feedback	
2011 QTR 1	• Continue to enhance capability maturity based on performance input and program feedback	12. V.3 of the reference architecture based on continuous-performance priority setting 13. Risk assessment V.2
2011 QTR 2	• Prioritize EA focus for the next reference architecture cycle	

Governance: State enterprise architecture activity, policy and priorities will be determined by an Architecture Review Board. Final direction and architectural policy will be made by the State Chief Information Officer with input from the Chief Technology Officer and governance bodies.

Architecture Review Board: This 11-member team will advise and review the setting of and compliance with enterprise architecture standards. Five members will be elected by an all agency architecture interest group and six appointed by the state CTO.

OET Responsibilities: OET architecture staff will coordinate and facilitate all enterprise architecture planning activity.

Agency Responsibilities: Agencies will provide a single individual knowledgeable in architectural policies and practices to serve on planning team(s). Agencies will also provide subject matter experts in areas of business information and technology.

Architecture Process Implementation		
	Quarterly Goals	**Six-Month Milestones/Deliverables**
2009 QTR 3	• Integrate Architecture requirements into technology procurement process	1. RFP addendum 2. Process integration plan 3. Communications and Training plan 4. EA sub-discipline work plans 5. Marshall agency resources for work teams 6. RFP and procurement process actively integrated with EA tooling 7. Formally initiate subject matter expert level work groups within EA disciplines
2009 QTR 4	• Charter EA work teams under the EA board • Provide communications and training for policies, standards, guidelines and reference architecture. • Create plans for business, information, technology, and application EA discipline work teams • Develop plan to integrate EA with existing portfolio management processes	
2010 QTR 1	• Identify mature solution building blocks based on integration of processes • Produce vision-based business, information, technical, and application architectural work product that assures measurable EA implementation	8. Compliance plan 9. Updated and enhanced processes 10. Set of coordinated recommendations for the reference architecture 11. Timely vetting in the change management process 12. Communication and training of the EA enhancements across the breadth state government
2010 QTR 2	• Assess requirements and establish compliance process • Formalize work product objectives based on EA discipline work teams • Carry out continuous process improvement • Facilitate V.2 recommendations by EA discipline work teams within their area of specialty for the blue print • Implement information, SOA and business architecture governance • Coordinate between the disciplines and the security architecture	
2010 QTR 3	• Establish formal change management of EA discipline work teams • Establish formal process for architecture board reporting from EA work teams	13. Up-to-date versions of all publications fully available and communicated 14. Operational aspects of policy support actively deployed
2010 QTR 4	• Facilitate recommendations by EA discipline work teams within their area of specialty for the updated release of the reference architecture blueprint • Carry out ongoing policy, standards, and guideline development	
2011 QTR 1	• Refine coordination between the architecture disciplines as necessary • Enhance information governance, data stewardship and the early realization of data optimization ROI • Enhance SOA governance and the ability to leverage business architecture across interconnected components • Enhance business architecture	

Governance: The Architecture Review Board will provide direction and operation control of the business, application, information, and technical subject matter expert work teams. Those work teams will charter and have their own governance within them (i.e. data governance, SOA governance).

OET Responsibilities: OET architecture staff will coordinate and facilitate the enterprise architecture planning activity through the business, information, application, and technical disciplines. OET will also coordinate with the Office of the CISO to integrate security architecture within all areas of EA focus.

Agency Responsibilities: Agencies with individuals having required expertise will lead the EA program at the board level. Agencies will also be requested to provide subject matter experts in each of the discipline areas of enterprise architecture. As the architecture drills down to areas of specialty, agencies will be asked to provide highly skilled staff in these specialty areas on an as-needed basis.

Architecture Performance Model		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Assess and design plan for measurement of enterprise architecture program and process impacts • Analyze baseline architecture capability maturity levels	1. Performance measurement plan available 2. Performance reference model 3. Capability maturity baseline
2009 QTR 4	• Implement V.1 performance measures	
2010 QTR 1	• Conduct first performance measurement checkpoint, baseline and target • Achieve modest improvement of architecture capability maturity	4. First performance measurement checkpoint, baseline and target 5. Capability maturity improvement survey 6. Recommended actions
2010 QTR 2	• Assess performance measurement results and provide recommended action for course adjustments	
2010 QTR 3	• Enhance the sophistication of performance measures to align with evolving architecture objectives and business needs	7. V.2 Performance Reference Model 8. Adjusted performance measurement baseline and target
2010 QTR 4	• Assess performance measurement results and provide recommended action	
2011 QTR 1	• Measure performance based on the V.2 measures	9. V.3 Performance Reference Model 10. Adjusted performance measurement baseline and target sufficient to support blueprint evolution
2011 QTR 2	• Analyze performance measurement results and provide recommended action • Provide additional enhancements to the next version of the performance model	

Governance: State enterprise architecture performance model activity and priorities will be determined by the Architecture Review Board. Final direction will be set by the State Chief Information Officer with input from the Chief Technology Officer. Architecture performance models will be directed by the Architecture Review Board. Final architecture performance model decisions will be made by the Chief Information Officer with input from the governance bodies.

OET Responsibilities: OET architecture staff will coordinate and facilitate all enterprise performance model activity.

Agency Responsibilities: Agencies will be asked to provide subject matter experts knowledgeable in architecture performance models on planning and design team(s).

Initiative III

PROJECT AND PORTFOLIO MANAGEMENT

"We will centrally maintain and manage an integrated enterprise-wide information portfolio that supports governance and strategic decision-making, resulting in effective prioritization, improved accountability, and optimal alignment of strategies and business processes with available resources. The portfolio will be the foundation for best practices in analysis, planning, implementation, and performance measurement, and will promote effective stewardship of the state's primary resources – people and money.

"…[In the future] Portfolio management will be an integral part of agency and enterprise planning for application renewal, sharing and retirement. Business needs and information technology services will be effectively integrated. Community shared oversight and distributed self-discipline in planning, project practices, and reporting will be accepted as good business practices."

- State of Minnesota Information and Telecommunications Technology Master Plan 2009

Background: This key component of governance allows the state to strategically plan its investment in new technologies and the successful implementation of those technologies through adherence to a strict project management process. Project and portfolio management includes these elements:

- Strengthen project management practice through adherence to project management methodology (PMM) best practices
- Tracking and measuring performance on projects from proposal through implementation
- Analysis of the information management "portfolio" (the complete inventory of IT systems, assets and services) for prioritizing and possible shared applications
- Assistance in planning and executing major information technology initiatives across the administration

Five-Year Goals

- Effective project and portfolio management, governance, executive planning and priority setting based on robust data that outlines and tracks IT investments and activity.
- Visibility, insight and control across projects, programs and application portfolios that enable investment alignment with strategic priorities.
- Enhanced reporting and tracking of project execution to ensure efficiency and avoid resource waste and rework.

Sourcing Model: The program will be managed by a small core team with a strong tool-set for collecting and managing data and reporting, paired with agency CIOs and planning staff with expertise in agency portfolio management.

The Approach: A centralized, statewide information management portfolio program that leverages effectively the assets we have in people, technology, and processes across all agencies through the collection and reporting of useful and timely project data and strategic plans. This program should leverage technology and integrate with project portfolio management software. The architectural design underlying the current enterprise portfolio management (EPM) toolset should be used as the model for an enterprise cooperative system. The current project oversight process will be enhanced by shifting the direct responsibility for creating and maintaining project records from OET to agency CIOs and business management. Oversight will include an audit function to leverage OET's limited resources. Existing laws governing oversight will be reviewed and, where necessary, mandates will be revised and incorporated into policies and supported with expanded standards and tools.

Anticipated Outcomes:

- Improved project success as measured by metrics, including in-scope, on-time and on-budget
- Improved project portfolio transparency and visibility
- Timely data to drive executive planning and prioritization of IT investments
- Effective benchmarks
- Process to enforce architecture and standards
- Increased alignment between Master Plan and budget priorities.
- Stronger enforcement of project planning, documentation and reporting.

Project and Portfolio Management Initiatives (2009-2010)

1. Project management: Improve project management capability, measurement and reporting at both agency and enterprise level through the application of better processes, tools, governance and policies.
2. Portfolio management & planning: Develop portfolio management processes that improve the timing and quality of portfolio reporting, enabling transparency and agile decision-making; develop a portfolio management and planning process that links all technology investments to agencies' strategic plans, the State IT Master Plan and the Governor's strategic vision.

Project Management		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 4	• Roll out improved Enterprise Project Management (EPM) tool • Establish project and portfolio management policy framework; revisit existing policies and procedures • Establish project management steering team and establish group charter, membership and governance, membership. • Roadmap a project management improvement plan, including performance metrics • Revise project management practices and standards for alignment with enterprise architecture program	1. Enterprise project management planning tool in production 2. Priorities set for renewal and extension of project management practices and standards 3. Project & Portfolio Management Review Board formed and chartered 4. New project management process published 5. Project and Portfolio Management Policy Framework is published
2010 QTR 1	• Increase active project integration and reporting with EPM reporting tool • Publish revised project management practices and guidelines for all state agencies	6. Project metrics developed and publish
2010 QTR 2		
2010 QTR 3	• Pilot state project portal • Roll out state project portal	
2010 QTR 4	• Ongoing documentation and reporting	
2011 QTR 1	• Ongoing documentation and reporting	

Governance: The State Chief Information Officer will approve policies and plans in cooperation with staff from agencies and with input from IT governance bodies.

OET Responsibilities: OET will establish project management policies and procedures under the responsibility of the State Chief Information Officer with input from IT governance bodies. OET will develop and/or license an improved Enterprise Project Management (EPM) tool on behalf of the enterprise.

Agency Responsibilities: Agencies will comply with project management policies and procedures, and will participate actively in planning and portfolio enterprise analysis.

Portfolio Management & Planning		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 4	• Roll out improved Project Portfolio Management (PPM) tool • Establish portfolio management process and approach; Integrate and extend existing portfolio processes in mature agencies with state program • Develop portfolio management plan • Identify, select, deliver and distribute portfolio management templates that align with individual agency business priorities • Automate and enforce PPM governance processes via defined workflows and best practice adherence • Map a portfolio management improvement plan, including performance metrics • Establish communication and training plan to enable agencies to leverage portfolio management process and technologies	1. Portfolio Management tool in production 2. Portfolio management program plan 3. Communication plan for legislative committees
2010 QTR 1	• Align portfolio management plan with MMB budget process	4. Portfolio report aligned with state budget process
2010 QTR2	• Improve reporting on key project progress, including an annual report • Establish visibility and transparency of project portfolio via online portal • Develop metrics and KPIs for state project portal	5. Annual report on state's project portfolio 6. State portfolio portal pilot developed

Governance: The State Chief Information Officer will approve policies and plans in cooperation with staff from agencies and with input from IT governance bodies.

Project and Portfolio Management Review Board: A new working team charged with the task of developing and monitoring a cross-agency portfolio management program that carries out the intent of statutory reporting, approval and planning processes for IT projects and investments.

OET Responsibilities: OET will establish portfolio management policies and procedures based on industry best practices.

Agency Responsibilities: Agencies will comply with portfolio management policies, procedures and cost allocations.

Initiative IV

INFORMATION SECURITY TOOLS AND SERVICES

"We will implement a comprehensive program of protection from and reaction to threats to data, infrastructure, systems and assets, and provide for continuation of operations in emergency situations."

- State of Minnesota Information and Telecommunications Technology Master Plan 2009

"America's failure to protect cyberspace is one of the most urgent national security problems facing the new administration."

- Securing Cyberspace for the 44th Presidency, December 2008 Commission on Cybersecurity for the 44th Presidency

Background: Work already conducted by the Enterprise Information Security Program has identified a number of pressing security concerns, highlighting the need to establish or improve core security services. Today, the state's security services and tools exist at varied levels of maturity, ranging from:

- Very mature
- Reaching maturation
- Immature and inconsistent
- Non-existent

This situation prevents the state from measuring and comparing information security risks, response capabilities, and cost control equally across the executive branch.

Creating a set of enterprise-wide information security standards and policies will lay the groundwork for the state to share resources and tools, resulting in standard approaches to protect the state's information assets.

The State Chief Information Security Officer will lead the development and implementation of a two-year tactical plan for an enterprise-wide security program that establishes an Enterprise Security Program (governance, planning, policies, standards, and guidelines), and security services. In both areas, security initiative priorities will address the most pressing security concerns, including monitoring, access controls, vulnerability management, computer forensics, continuity of operations planning, and incident response.

On a final note, it is important to acknowledge the study that OET must prepare for the 2010 Legislature regarding future funding for the Security Program using a rate-based process with costs allocated to agencies. The implementation of this study is not detailed in this document, however, it will be part of the planning and governance processes.

Five-Year Goal

The Enterprise Security Program will have a set of shared tools, processes and services in place to achieve all strategic objectives in the Enterprise Security Strategic Plan. This includes:

- Improved Situational Awareness
- Proactive Risk Management
- Robust Crisis and Security Incident Management

Sourcing Model

In a co-sourcing model, security services will be delivered by a pool of specialized state resources, supplemented by partnerships and contractors for implementation of highly specialized security tools. The central resources will augment non-utility security services managed individually by state agencies.

The Approach

With help from security professionals across the executive branch, the enterprise activity will focus on the setting of policies and standards that ensure common attention to prioritizing security risks and the application of industry best practice across the enterprise. This will include:

- Shared tools and expertise leveraged from a central Enterprise Security Office
- Application of leadership's understanding of security risks to determine appropriate controls for the state's information assets

Anticipated Outcomes

- Information security program requirements are clearly articulated in a framework of policies, procedures, and standards
- The state will be able to continually measure its security risk posture using rigorous performance metrics
- Preventive controls in place that will minimize the number and severity of security incidents
- Information assets – including those held in trust –- will be protected from unauthorized disclosure, theft, loss, destruction, and alteration
- The state will manage security events more efficiently and effectively, thereby minimizing damage
- Information assets will be available when needed, most importantly during emergencies and times of crisis
- All state computer systems are continuously monitored for adverse information security events
- Exploitable technical vulnerabilities in state computer systems are promptly identified and remediated
- Government entities promptly contain, remediate, and manage information security incidents

Security Service Initiatives (2009-2010)

1. **Enterprise Security Program Framework:** Create and govern critical security policies that will set enterprise-wide requirements and processes that articulate the state's risk profile and compliance status through compliance and risk management practices. This framework includes the Business Continuity Program that will provide assistance to determine the necessary planning, business impact analyses, and recovery strategies necessary for agencies to ensure critical systems and services will continue at the time of a crisis or disaster.
2. **Comprehensive Security Monitoring and Situational Awareness:** Security Information and Event Management (SIEM) and Intrusion Detection and Prevention (IDP) are key components of this initiative. SIEM is a solution that collects, correlates, and analyzes security event data in real time. SIEM solutions help security professionals identify and promptly respond to threats, demonstrate compliance with regulatory requirements, and perform sophisticated forensics. IDP tools monitor and analyze network traffic for potentially malicious security event data. Through IDP solutions, security professionals can identify and promptly respond to threats, demonstrate compliance with regulatory requirements, and perform sophisticated forensics.
3. **Enterprise Vulnerability and Threat Management Tools:** Enterprise vulnerability and threat management program seeks to provide a proactive approach to identify and mitigate security risks inherent in all systems before they are exploited by malicious individuals.
4. **Identity and Access Management:** The identity and access management program (IAM) exists to guide the state toward a common vision for controlling access to information resources. The initiative will establish the necessary governance and technical guidance committees to develop a strategy for an identity management core utility service.
5. **Enterprise Information Security Funding Strategy:** The 86th Legislature instructed the Office of Enterprise Technology and Minnesota Management and Budget to develop a comprehensive funding strategy for enterprise security activities in the State of Minnesota. This key initiative will help determine how the Enterprise Security Program can be sustained and made financially viable for the future. With assistance from agency partners and advice from independent consultants, this study will outline what security work needs to be done to provide the State of Minnesota with a secure information technology infrastructure. In addition, the study will recommend the best approach to pay for these security services.
6. **Enterprise Security Incident Management:** This service initiative provides actionable plans to stop unwanted activity, reduce impact of malicious activities, and provide support in preventing recurrence.

Enterprise Security Program Framework		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Core security program policy published	1. Exception process established for published policies/ standards 2. Baseline operational & technical security policies developed 3. Agency pandemic plan in the Living Disaster Recovery Planning System (LDRPS) 4. Complete set of templates for continuity of operations planning in LDRPS
2009 QTR 4	• Phase 1 of core security policies developed	
2010 QTR 1	• Phase 2 of core security policies developed	5. Baseline management control policies developed 6. Program performance metrics defined
2010 QTR 2	• Phase 1 & 2 core security policies published	
2010 QTR 3	• Baseline security standards complete • End-user security requirements defined	7. Agency business continutiy planners training conducted 8. Initial standards to support policies published 9. Standardized performance reporting improvement of program 10. Published process for continuous improvement of program 11. Disaster recovery strategies implemented 12. State Recovery Center improved 13. Continuity plans for all priority 1 and 2 state service complete
2010 QTR 4	• Enterprise Security Program performance reporting standardized • Policy/standard program maintenance process defined and operational	
2011 QTR 1	• The state's risk posture captured through a standard governance, risk, and compliance process • Assess the compliance status of the enterprise policy/standard for continuity of operations planning	14. First Enterprise-wide risk posture report delivered to Governor's office 15. Initial awareness training complete 16. Compliance to enterprise policy/standard for continuity of operations planning
2011 QTR 2	• Regular executive reporting standardized	

Governance: The State Chief Information Officer will approve policies with input from IT governance bodies.

Information Security Council (ISC): This body of agency-based security experts will serve as the working committee to vet and forward policies and standards through the IT governance process.

OET Responsibilities: OET, in consultation with agencies, will develop policies and processes, manage governance approval and develop shared security services.

Agency Responsibilities: Agencies will contribute resources, as requested to develop policies and will comply with state policies and procedures.

Comprehensive Security Monitoring and Situational Awareness		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Advanced security intrusion monitoring tools will be installed in the state's central data centers, managed by OET	1. Intrusion detection and prevention tools installed in state data center 2. Security event monitoring tools in state data center
2009 QTR 4	• Advanced security information and event collecting tools will be installed in the state's central data centers, managed by OET • Information and event management tools will be tuned to develop a security baseline for OET • Advanced security intrusion monitoring tools will be installed in certain agencies participating in the pilot implementation • Monitoring tools will be tuned to develop a security baseline for the agencies participating in the pilot	
2010 QTR 1	• Business plan is developed for enterprise-wide intrusion detection and prevention • New agencies incorporated into the monitoring solutions, as resources permit • Research viability of Minnesota's involvement with the Federal Government's Einstein Initiative	3. OET and certain agency data centers monitored for adverse security events 4. Business plan for enterprise security intrusion detection and prevention tools complete 5. Refined OET practices for monitoring OET's data centers 6. Security Information and Event Management (SIEM) operational manual with documented processes complete
2010 QTR 2	• Enterprise security information and event management process is developed	
2010 QTR 3	• Establish service definitions for enterprise-wide security information and event management • OET and certain agency data centers will be continuously monitored for adverse events	7. SIEM service documentaion is developed
2010 QTR 4		
2011 QTR 1	• Finalize analysis of enterprise baseline requirements for universal security information and event management practices • Incorporate new agencies into the monitoring solutions, as resources permit	8. Business plan for enterprise security information and event management complete 9. Enterprise procedures for information and event management published 10. Service offering made available and integrated with funding model
2011 QTR 2		

Governance: The State Chief Information Officer will approve the plan, calendars and budgets with input from IT governance bodies, including the Information Security Council (ISC) and the Service Strategy Team.

OET Responsibilities: OET will manage the development of security tools and services.

Agency Responsibilities: Agencies will contribute to planning as requested.

Enterprise Vulnerability and Threat Management Tools		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3		
2009 QTR 4		
2010 QTR 1	• Define vulnerability management reporting requirements	1. Full spectrum of reporting requirements defined for users of the vulnerability management system 2. Enterprise Vulnerability Management System (EVMS) fully operational across Executive Branch
2010 QTR 2	• Robust vulnerability and threat management tools implemented across all executive branch entities	
2010 QTR 3		
2010 QTR 4		
2011 QTR 1	• Business process development for threat advisory service • Regular system performance analysis and refinement • Regular generation of vulnerability reporting for all levels of key stakeholders as defined in the Enterprise Security Applicability Standard	3. Enterprise vulnerability reporting standardized 4. Threat Advisory process fully operational across Executive branch
2011 QTR 2		

Governance: The State Chief Information Officer will approve policies with input from IT governance bodies, including the Information Security Council.

OET Responsibilities: OET, in consultation with agencies through agency liaisons, will develop shared security services.

Agency Responsibilities: Agencies will contribute resources, as requested, to develop policies and will comply with state policies and procedures.

Identity and Access Management		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3		1. Establishment of identity and access management steering and technical committees 2. Integration with other statewide directories defined
2009 QTR 4	• Begin to gather identity and access management business requirements from across executive branch • Improve existing identity and access management functionality and tool set • Convene steering and technical committees for identity and access management • Opportunity developed for integration with other statewide directories	
2010 QTR 1	• Outline identity and access management strategy and roadmap • Develop requirements for the integration and alignment with federal identity standards	3. Identity and access log / audit reporting interfaces / distribution methods defined 4. Risk and security requirements for statewide service developed 5. Enhanced identity and access management functionality developed
2010 QTR 2	• Identify statewide security risk and requirements for identity and access management	
2010 QTR 3	• Integration with other statewide directory services	6. Automated integration with external log/reporting tools developed 7. Path to statewide single sign-on functionality developed
2010 QTR 4	• Enhance the identity and access management functionality	
2011 QTR 1		8. Plan for integration and alignment with federal identity standards 9. Actionable strategy and technical roadmap developed for statewide service 10. Plan for service migration to statewide solution developed
2011 QTR 2		

Governance: The State Chief Information Officer will approve policies with input from IT governance bodies, including the Information Security Council.

OET Responsibilities: OET, in consultation with agencies, will develop shared security services.

Agency Responsibilities: Agencies will contribute resources, as requested, to develop policies and will comply with state policies and procedures.

Enterprise Information Security Funding Strategy		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 4		1. Proposed scope, methodology and work breakdown structure completed
2010 QTR 1		2. Funding study document delivered to OET 3. Funding strategy report due to the Legislature

Governance: The State Chief Information Officer will approve policies with input from IT governance bodies, including the Information Security Council.

OET Responsibilities: OET, in consultation with agencies, will develop shared security services.

Agency Responsibilities: Agencies will contribute resources, as requested, to develop policies and will comply with state policies and procedures.

Enterprise Security Incident Management		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Formal development of information security incident management services	1. Incident management service documentation completed 2. Security incident management metrics developed
2009 QTR 4	• Analysis of incident management practices for the identification of appropriate reporting metrics	
2010 QTR 1	• Developing the necessary requirements for enterprise and agency specific incident management reporting	3. Executive reports and reporting process developed
2010 QTR 2		
2010 QTR 3		
2010 QTR 4		
2011 QTR 1	• Define business requirements for and investigate the capabilities of metric reporting tools for security incident management	4. Metric reporting tool selected and implemented

Governance: The State Chief Information Officer will approve policies with input from IT governance bodies, including the Information Security Council.

OET Responsibilities: OET, in consultation with agencies through agency liaisons, will develop shared security services.

Agency Responsibilities: Agencies will contribute resources, as requested to develop policies and will comply with state policies and procedures.

Initiative V

UNIFIED COMMUNICATIONS AND COLLABORATION

"The state will improve the quality and efficiency of IT programs and the functions they support by consolidating IT services commonly used across the enterprise, and by relying on shared services for provision of service offerings used by multiple agencies.

"…[In the future] where a positive impact on the value derived from IT investments can be realized without compromising citizen and agency service levels, basic support elements of enterprise computing will be centrally managed."

- State of Minnesota Information and Telecommunications Technology Master Plan 2009

Background: A Unified Communications and Collaboration (UCC) strategy and infrastructure promotes the effective use of various communication services and collaborative, web-based work spaces. The ability to communicate and collaborate with a broad range of interested parties is a key efficiency and productivity differentiator for state agencies. Some of the technologies that support UCC are:

- Email
- Instant Messaging
- Web Conferencing
- Web-based Collaboration
- Voice Integration
- Find Me/Follow Me (mobile/desktop/WiFi integration tools)
- Desktop Sharing

Because UCC products and software have become ubiquitous tools for every government enterprise, a full UCC package is considered to be a priority candidate for designated "utility service" status, and a UCC strategy is a natural "low hanging fruit" opportunity for consolidation and collaboration.

Five-Year Goals

- Full implementation of Enterprise Email within the executive branch, and value on investment realized.
- Enterprise Email system leveraged beyond the executive branch.
- Full complement of additional UCC services.

Sourcing Model: The Enterprise Email service is currently in-sourced. Sourcing strategies will be developed for each additional UCC service individually to ensure high quality, cost-effective delivery appropriate to the needs and best interests of the customers.

The Approach: Consolidate the management of all UCC services to set across-the-board standards, avoid redundancy and enable volume savings.

Anticipated Outcomes

- More efficient and effective business communications in all areas of state government
- Increased collaboration among business partners
- Better communications access and options for citizen interactions
- Productivity gains from a feature-rich communication and collaboration infrastructure
- Higher service attributes for UCC services (availability, capacity, performance)
- Increased security for communications infrastructure

Unified Communications and Collaboration Initiatives (2009-2010)

Highlight Initiative

1. **Enterprise Email:** Implement enterprise email system across all cabinet-level agencies in the executive branch and beyond.

Core Initiative

2. **Additional UCC Services:** Create and implement a comprehensive plan for offering Unified Communications and Collaboration Tools as a utility package.

Enterprise Email		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Continue Enterprise Email implementation in executive branch • Establish Enterprise Email metrics – Finalize SLA and establish measurable metrics – Create cost and performance baseline of current localized email systems	1. Complete migration of cabinet-level agencies to Enterprise Email 2. SLA and performance measurement for Enterprise Email system 3. Introduce Roadmap for Exchange 2010 to Governance
2009 QTR 4	• Complete Enterprise Email implementation • Introduce roadmap for Exchange 2010 to Governance	
2010 QTR 1	• Implement ongoing Enterprise Email metrics and monitoring process	4. Enterprise-wide cost baseline for measuring ROI 5. Service add-ons and improvements
2010 QTR 2	• Initial service evaluation and improvements via survey	
2010 QTR 3	• Begin Enterprise Email offering beyond executive branch • Continued service improvement	6. Enterprise Email full service to all government customers 7. First year metrics and ROI evaluation
2010 QTR 4	• Continued service improvement	
OET Responsibilities: Email service implementation and metrics evaluation will be managed by the Office of Enterprise Technology with input from the Service Strategy Team and the Unified Communications and Collaboration Steering Team. **Agency Responsibilities**: All executive branch agencies will convert to the Enterprise Email system by the end of 2009.		

Additional Unified Communication and Collaboration (UCC) Services		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Provide updated web collaboration technology • Assess and evaluate enterprise opportunities for UCC utility service management and/or alternative sourcing	1. UCC utility service feasibility study and vision 2. Update web collaboration/document services available; early adopters migrated 3. UCC strategy and vision
2009 QTR 4	Define UCC strategy and vision: • Define UCC requirements • Identify current UCC architectures • Perform feasibility analysis	
2010 QTR 1	Develop UCC implementation plan: • Define UCC sourcing models • Develop business case for UCC components other than email • Develop and process RFP/RFI	4. UCC business case 5. UCC implementation plan and sourcing strategy 6. RFP/RFI for UCC utility service 7. Instant Messaging (presence detection) service available
2010 QTR 2	Plan and analyze UCC components: • Develop migration plan • Design implementation plan • Provide instant messaging technology	
2010 QTR 3	Implement instant messaging / desktop sharing / conferencing infrastructure: • Integration of voice and data technology • Implement workspace collaboration technology	8. Virtual desktop software services piloted
2010 QTR 4	Continued service improvement and adoption: • Voice integration with legacy infrastructure • Manage changes to communications • Manage business process changes • Identify UCC service development and progression requirements	

Governance: IT governing bodies, including the Service Strategy Team and the Unified Communications and Collaboration Steering Team, will review and provide input to service business cases and implementation plans.

Service Strategy Team: A Service Strategy Team, comprised of agency IT, finance and business representatives, will provide input and feedback to service planning and strategies. This team is being formed from the current Rate Methodology Sub-Committee of the Customer Rate Review Team.

Unified Communications and Collaboration (UCC) Steering Team: This team will handle specific tactical UCC service issues as determined by the Service Strategy Team.

OET Responsibilities: OET will execute the service delivery and sourcing strategy for the UCC suite of products with input from the Service Strategy Team.

Agency Responsibilities: Agencies will adopt additional UCC services on an as-needed basis. No agency will engage a UCC service other than the enterprise solution.

Initiative VI

MINNESOTA ENTERPRISE E-LICENSING

Background: The *e*-Licensing project has been years in the making and is a vital step forward for better services and efficient government. The creation of an e-licensing system began with the state's 2005 Drive to Excellence government reform initiative. Currently, Minnesota's regulated licensing and permitting activities consist of approximately 900 types of professional/occupational licenses and business/commercial licenses; the state issues about one half million of these licenses annually. The state's licensing operations for all license types are performed by over 800 full-time employees at more than 40 state agencies and boards, using in excess of 60 independent licensing systems. The annual expense is more than $60 million. Some Minnesota agencies have streamlined and e-enabled their licensing processes, and in a few cases, paper has been virtually eliminated. In other cases, the process has remained essentially paper based, with electronic service limited to the download of application forms from the web for manual completion and processing. For private businesses it is a cumbersome system that cannot be avoided.

The new system will enable some agencies to move from manual to automated licensing processes and to make access available 24 hours a day, every day of the year. Streamlining underlying business processes and moving from paper to electronic workflows and transactions where possible will make the state's licensing operations more efficient and effective.

In 2007, the legislature and governor appropriated $7.5 million from the general fund to develop an infrastructure for this system and launch the pilot phase. The pilot phase included the purchase and design of an enterprise system, as well as implementation for the Peace Officer Standards and Training Board (POST) and the Emergency Medical Services Regulatory Board (EMS). The system is now operational for POST and EMS. In 2009, the Governor's initiative to fully implement the system was adopted by the legislature and passed into law; the $35 million initiative is funded through a surcharge on license fees.

"We will improve the delivery of services to citizens and business partners by means of convenient and secure self-service programs; by expanding the use of technology to minimize constraints of time and place, allowing customers an active role in managing their relationships with government; and by supporting sharing of information and applications among agencies and across jurisdictions."

- State of Minnesota Information and Telecommunications Technology Master Plan 2009

Five-Year Goals

1. A "one-stop shop" where citizens and businesses can quickly, easily, and securely obtain a state-issued professional or occupational license through the Internet.
2. Improved, technology-enabled processes that result in Minnesota citizens obtaining their licenses faster and more easily.

The Approach: The new e-Licensing steering team will direct the transfer and sequence of agencies to join the system and system development.

Anticipated Outcomes

- Single online location for applying for and managing most occupational and business licenses.
- Improved security for citizen licensing data and transactions.
- More efficient agency licensing processes.
- 24 hour-a-day citizen access and online self-services for licensing.
- Faster, real-time license processing.
- Reduced redundant data entry by citizens.
- Less-burdened internal operations for agencies due to increased citizen self-service.
- Reduced environmental waste by taking paper and transportation out of the process.
- Advanced features for more reporting and business data analysis.
- Less effort on maintenance of individual systems and processes.
- Investment dollars and ongoing costs minimized through pooled resources and a single front-office system.

Minnesota Enterprise e-Licensing System FY2010-FY2015

The Minnesota Enterprise e-Licensing System (ELS) initiative has a vision to make government licensing processes more efficient, transparent and citizen-friendly across those executive branch agencies that provide business/professional or commercial/business licenses by the year 2015. OET, in partnership with Department of Labor and Industry (DoLI), have established a program to manage the development and implementation of a multi-year rollout plan using funds the legislature approved beginning in FY2010. Key e-Licensing program initiatives include:

- Analyzing e-licensing data and developing agency outreach plan
- Conducting outreach, orientation and high level requirements gathering meetings with agencies
- Building the strategic rollout and implementation plan for FY2010- FY2015
- Implementing specific agency transitions to e-Licensing through a multi-phased master rollout plan during the period FY2010- FY2015, beginning with the Licensing Division of DHS in FY2010- FY2011

Development of Master Rollout Plan for FY2010–FY2015 Implementation		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	**Master Rollout Plan Development** • Establish program management for long range ELS Phase 2 roll-out planning • Establish capabilities for agency outreach • Reconvene e-Licensing program governance and engage agency representatives for ELS Phase 2 • Develop collateral materials for agency outreach and customer needs discussion • Build list of key attributes for additional data collection from agencies • Assess financials and status of surcharge funding from agencies	1. Program governance/ steering committee for Phase 2 established 2. Outreach approach document completed 3. Collateral materials completed 4. List of attributes and scoping information completed
2009 QTR 4	• Create ELS USER Group charter/guiding principles • Create ELS Change Management Advisory Board • Conduct preliminary value on investment discussion with each agency • Conduct agency meetings to present the ELS solution and acquire agency attributes, high level scoping requirements • Acquire and evaluate known licensing and agency data including agency license attributes, licensing systems surveys and assessments, agency online presence, agency licensing business processes • Agency roll out plan draft • Assess financials and status of surcharge funding from agencies	

Continued

2010 QTR 1	• Finalize agency meetings for agency profiles, risks, and high level scoping requirements • Assess agency attributes and priority for value of investment evaluation and implementation sequencing • Review plan with key stakeholders: OET, Program Office, Steering Committee/ Agencies. • Revise plan based on input from key stakeholders • Assess financials and status of surcharge funding from agencies	5. FY2011-2015 agency rollout plan updated 6. Surcharge summary report update 7. Updated budget
2010 QTR 2	**Next Agency: Repeat planning process for remaining agencies** • Validate next agency rollout and implementation plan and project • Assess financials and status of surcharge funding from agencies	
2010 QTR 3 **2010 QTR 4**	**Next Agency: Repeat planning process for remaining agencies** • Validate next agency rollout and implementation plan and project • Assess financials and status of surcharge funding from agencies	8. Updated and validated FY2011-2015 agency rollout plan 9. Surcharge summary report update 10. Updated budget
2011 QTR 1 **2011 QTR 2**	**Next Agency: Repeat planning process for remaining agencies** • Validate next agency rollout and implementation plan and project • Assess financials and status of surcharge funding from agencies	11. Updated and validated FY 2011-2015 agency roll out plan 12. Surcharge summary report update 13. Updated budget 14. Updated operational charge back plan
2011 QTR 3 **2011 QTR 4**	**Next Agency: Repeat planning process for remaining agencies** • Validate next agency rollout and implementation plan and project • Assess financials and status of surcharge funding from agencies	15. Updated and validated FY2011-2015 agency roll out plan 16. Surcharge summary report update 17. Updated budget 18. Updated operational charge back plan
2012 QTR 1 through 2015 Qtr 4	**Next Agency: Repeat planning process for remaining agencies** • Validate next agency rollout and implementation plan and project • Assess financials and status of surcharge funding from agencies	

Governance: This is a Drive to Excellence program; it is being managed by the State CIO under the joint direction of the Drive to Excellence Board and the Commissioners Technology Advisory Board. Tactical planning and scheduling will be the responsibility of the e-Licensing Steering Team; plan approvals are the responsibility of the State CIO with input from the governance bodies.

e-Licensing Steering Team: A team representative of agencies with business and professional licenses is being created to provide input to Phase 2 implementation of the e-licensing system.

OET Responsibilities: OET will staff the steering team and develop tactical plans, timelines and budgets for the project.

Agency Responsibilities: Agencies, commissions and boards that issue professional and occupational licenses will use the enterprise system.

Minnesota Enterprise e-Licensing System Initiatives (2009-2015)

Roll out a new online customer interface ("gateway") for licensing transactions. In general, the process of implementing the e-licensing solution will follow a generic process outlined by the following phases

Phase	Objective
Detailed planning	Define agency-specific value objectives, refine project scope, and align stakeholder expectations. Develop project and resource plan. Institute project management processes.
Design	Define online licensing business requirements and processes; perform software gap analysis; create technical specifications.
Build	Develop and configure the system. Test the solution against requirements.
Deliver	Prepare for and execute system and business cutover to the new environment
Operate	Transition from the readiness activities of a pre-production environment to actual business operations

While not all agencies and license types are identical, the project will adhere to this industry standard process as it moves through the implementation stages of the process.

e-Licensing System Phased Implementations FY2010–FY2015		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	**Project Initiation: Agency Project–DHS** • Statement of Work • Vendor contract • Roles and responsibilities • Project plan	1. Business process document completed 2. Business events demonstrated 3. Architecture vision document completed 4. Change management and communications plan 5. Project plan finalized 6. "To-be" business process requirements documented 7. Architecture requirements document finalized
2009 QTR 4	**Visioning and planning: Agency Project–DHS** • Vision • Architecture and Security Vision • Change and Communications Plan • LEAN and Business Process Re-engineering Enterprise analysis • Enterprise scoping	
2010 QTR 1	**Design: Agency Project–DHS** • Detail Application Requirements • Security Requirements • Technical Design • Agency back office change requirements	8. Conference Room Pilot (CRP) 9. License software release/configuration built in UAT 10. License release –components completed 11. Conference Room Pilot (CRP) 12. System administrator training completed 13. User acceptance testing completed 14. Production release / cutover accomplished 15. Technical design document completed
2010 QTR 2	**Build: Agency Project–DHS** • ELS architecture developed • Architecture changes implemented • Build / configure business components and system interfaces • Solutions validated out plan	

Continued

2010 QTR 3	**Deliver: Agency Project–DHS** • Training • User Acceptance Testing • Requirements matrix completed • Production Release	16. Final Conference Room Pilot (CRP) 17. License software release/configuration built in UAT 18. License release –components completed 19. System administrator training completed 20. User acceptance testing completed 21. Production release / cutover accomplished 22. Technical design document completed 23. Go-live support services implemented 24. Enterprise rollout plan in place 25. Project lessons earned
2010 QTR 4	**Visioning and Planning: Agency Project–Next Agency** • Architecture and Security Vision • Change and Communications Plan • LEAN and Business Process Re-engineering • Enterprise analysis • Enterprise scoping **Roll Out: Agency Project- DHS** Support of Agency • Documentation • Turn over to Application support team • Lessons learned	
2011 QTR 1	**Design: Agency Project–Next Agency** **Repeat process for remaining agencies FY2011-FY2015** • Detail Application Requirements • Security Requirements • Technical Design • Agency back office change requirements	26. Next Agency Software work plan 27. Next Agency Lean Improvement plan 28. Next Agency infrastructure design 29. Next Agency requirements defined 30. Next Vendor selection 31. OET Architecture developed 32. Additional functionality for next agency as needed
2011 QTR 2	**Build: Agency Project–Next Agency** • ELS architecture developed • Architecture changes implemented • Build / configure business components and system interfaces • Solutions validated out plan	
2011 QTR 3	**Deliver: Agency Project–Next Agency** • Training • User Acceptance Testing • Requirements matrix completed • Production Release	33. Agency Conference Room Pilot (CRP) 34. License software release/configuration built in UAT 35. License release –components completed 36. System administrator training completed 37. User acceptance testing completed 38. Production release / cutover accomplished 39. Technical design document completed 40. Go-live support services implemented 41. Enterprise rollout plan in place 42. Project lessons learned
2011 QTR 4	**Rollout: Agency Project–Next Agency** Support of Agency • Documentation • Turn over to Application support team • Lessons learned	
2012 QTR 1 through 2015 Qtr 4	**Repeat implementation process for remaining agencies**	

Governance: This is a Drive to Excellence program; it is being managed by the State CIO under the joint direction of the Drive to Excellence Board and the Commissioners Technology Advisory Board. Tactical planning and scheduling will be the responsibility of the e-Licensing Steering Team; plan approvals are the responsibility of the State CIO with input from the governance bodies.

e-Licensing Steering Team: A team representative of agencies with business and professional licenses is being created to provide input to Phase 2 implementation of the e-licensing system.

OET Responsibilities: OET will staff the steering team and develop tactical plans, timelines and budgets for the project.

Agency Responsibilities: Agencies, commissions and boards that issue professional and occupational licenses will use the enterprise system.

Initiative VII

DATA CENTER FACILITIES AND OPERATIONS

Background: A data center is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices. A data center's main function is to run the applications that handle the core business and operational data of the organization. Data center operations management is comprised of the day-to-day operation and maintenance activities of hosted systems and the data center facility. Monitoring and managing data centers effectively is a key contributor to an enterprise's ability to effectively manage affairs of state, generate business revenues and recover from natural or man made disasters.

A recent third-party review of executive branch data centers concluded that a highly dispersed data center environment has resulted in three times the necessary total data center footprint spread throughout the at least 36 data centers, and across-the-board sub-par ratings for security, safety, disaster recovery, and operations. There are 85 different operating system versions in use; there are 267 different server models (there should be only 30-50), excluding appliances and specialty use servers; and approximately 25 percent of the servers are over five years old and an additional 25 percent will reach five years in the next 12 months. Their age means the state cannot take advantage of virtualization, which allows multiple applications to run on a physical server and reduces opportunities for consolidation.

The state is not alone in its need for better, more secure and higher functioning data center space. Minnesota's counties and higher-education institutions face similar challenges and are interested in partnerships.

"Minnesota will have state-of-the-art data and application hosting with robust disaster recovery capabilities, sized and configured to meet business continuity demands of government customers. The number and location of hosting centers will be determined by practical concerns of business need, operational capability, performance requirements, available technologies, and funding."

- State of Minnesota Information and Telecommunications Technology Master Plan 2009

Five-Year Goals

1. Optimized, updated and centralized primary data center space for the state that
   - Consolidates and leverages across workloads
   - Consolidates data center operations and support services
2. Establish at least one secondary facility to enable adequate redundancy, disaster recovery and business continuity
3. Completed transfer of all data and applications to new site or approved backup
4. Complete business continuity and disaster recovery planning/execution

The Approach: The new enterprise governance structure will direct the consolidation program and determine the short-, mid- and long-term strategies necessary for successful initiative completion.

Anticipated Outcomes:

- Right-sized data center footprint for state operations
- An energy-efficient, "green" IT environment
- Improved security for state data centers
- Reduced risk of data center failures
- Improved systems availability and performance
- Improved service levels
- Reduced costs of adding/changing/upgrading applications and infrastructure
- Increased support staff productivity
- Ability to adopt new IT technologies such as virtualization and cloud computing

Data Center Consolidation Initiative (2009-2010)

1. **Minnesota State Data Center and Backup Facility:** A bonding request is underway to build a new primary data center site and to partner with other local government entities to use the Minnesota State Data Center. The request would also upgrade one or more current state data center locations to serve as back-up facilities; and migrate appropriate resources and equipment to back-up site(s).

2. **Data Center Services Creation:** The consolidated data center space for the state will certainly need a series of services that customers want at a price point that brings value to them. This initiative highlights the fact that such a service offering is currently not available and needs to be developed along with a sourcing strategy for the delivery of the services to be rendered. Furthermore, no service offering will be complete without preliminary migration plans that customers require in order to fully understand and gauge the journey to a common data center solution.

3. **Data Center Planning and Migration**: While long-term strategies towards site location and service offerings are underway, the state has an urgent need to plan and execute relevant data center shifts that will improve its overall risk posture and position the enterprise for a successful large center migration.

Minnesota State Data Center & Backup Facility		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Establish governance for consolidation project • Requirements gathering and definition of project and partnerships finalized • Preliminary request for bonding submitted	1. Operating steering team launched 2. Strategy and partnerships defined
2009 QTR 4	• Revised bonding recommendation submitted	
2010 QTR 1	• Possible bonding recommendation from governor to legislature • Backup site planning started • Pre-design/design RFP; bid awarded	3. Pre-design/design and recommendations completed 4. Funding and sourcing approach for data center and backup finalized
2010 QTR 2	• Bonding proposal reviewed by Legislature	
2010 QTR 3	• Primary facility preparation • Primary facility migration planning • Backup site(s) upgrades & construction • Backup site(s) migration planning	
2010 QTR 4	• Pre-design/design completed • Backup site(s) construction completed • Backup site(s) migration started	
2011 QTR 1	• Primary site construction begins • Backup site(s) migration completed	
2011 QTR 2	• Primary site construction continued	

Governance: Tactical planning and scheduling will be the responsibility of the Data Center Steering Team; plan approvals are the responsibility of the State CIO with input from the governance bodies.

OET Responsibilities: OET will staff the steering team and develop tactical plans and budgets for the consolidation project. OET, working with the Department of Administration, will develop the RFP and manage the award of the bid and the facility preparation, construction, and migration processes.

Agency Responsibilities: All executive branch agencies with data center facilities, regardless of size or sophistication, will comply with the plan and schedule for consolidation. CIOs and IT Leads are responsible for their agency's individual moves.

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Data Center Services Porfolio Creation		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Data center service offering market analysis conducted • Data center governance model developed	1. Market analysis completed 2. Governance process in place 3. Service stack finalized 4. Data center service offering definition, bundling and pricing completed
2009 QTR 4	• Data center service offering completed, including co-location, managed and outsource service offerings • Service Level definition and agreements finalized • Key performance indicators completed • Cost models drafted	
2010 QTR 1	• Data center service offering process map developed • Sourcing strategy for data center service offering finalized • Cost models finalized	5. Migration and integration templates completed 6. Data center service offering, costing and sourcing strategies completed
2010 QTR 2	• Migration templates and integration templates completed	

Governance: Tactical planning and scheduling will be the responsibility of the Data Center Steering Team; plan approvals are the responsibility of the State CIO with input from the governance bodies.

OET Responsibilities: OET will staff the steering team and develop tactical plans and budgets for the consolidation project. OET will develop the RFP and manage the award of the bid and the facility preparation, construction, and migration processes.

Agency Responsibilities: Agencies will assist with vetting and provide feedback on overall service offering and composition.

Data Center Planning and Migration		
	Quarterly Goals	**Six-Month Milestones / Deliverables**
2009 QTR 3	• Secure external expertise in consolidation and migration planning	1. Establish Data Center Consolidation Steering Team 2. Review existing documentation and background analysis
2009 QTR 4	• Create master migration plan	
2010 QTR 1	• Start phase 1 migration	3. Migration of high risk data centers
2010 QTR 2	• Complete phase 1 migration • Start phase 2 migration	
2010 QTR 3	• Continue phase 2 migration	• Backup location identified
2010 QTR 4	• Complete phase 2 migration	

Governance: Strategic and tactical planning, and scheduling will be the responsibility of the Data Center Steering Team; plan approvals are the responsibility of the State CIO with input from the governance bodies.

OET Responsibilities: OET will staff the steering team and develop tactical plans and budgets for the consolidation project. OET will develop the RFP and manage the award of the bid and the facility preparation, construction, and migration processes.

Agency Responsibilities: CIOs and IT Leads are responsible for their agency's individual move.

CONCLUSION

Effective management of IT resources in today's environment requires action in two vital areas: coordination of planning and decision making, and consolidation of infrastructure service delivery. This plan addresses both, making it unique among state consolidation efforts currently underway.

Minnesota iGov provides a roadmap of the tactics and governance that will result in concrete, near-term improvement to management of the state's IT assets and to the infrastructure that delivers electronic government to the citizens of this state. The combined result will bring Minnesota to the forefront as good stewards of information technology today, and as innovators in the government of tomorrow.

> "Minnesota iGov... will bring Minnesota to the forefront as good stewards of information technology today, and as innovators in the government of tomorrow."

APPENDIX 1

Governance Documents

- Communications Plan
- Standard iGov Meetings Calendar
- Monthly Report Template

Minnesota iGov

COMMUNICATIONS PLAN

Primary Communications

1. **Summary of Committee Activity**: All governance groups and enterprise project teams will take minutes of meetings, which will be available on a team SharePoint site within five days of the team meeting. Minutes will then be compiled in to a "Summary of Committee Activity" report which will be forwarded to the All CIO Team on a monthly basis. Following each month's All CIO Team meeting, the "Summary of Committee Activity" report – with CIO recommendations (when applicable) – will be forwarded to the Program Review Team.
2. **Program Review Team Executive Summary**: The "Program Review Team Executive Summary" will include all committee business that requires action or decision by the Program Review Team, a summary of the status of enterprise projects and copies of the minutes from governance committees. Also included will be any recommendations on enterprise decisions made by the All CIO Team. The "Program Review Team Executive Summary" will be distributed by email to the Program Review Team at least three days before a scheduled meeting.
3. **Minnesota iGov Monthly Report**: This monthly report will include a high-level summary of governance team activities and enterprise project status reports for the previous month, as well as a summary of action items taken by the Program Review Team. The report will be posted on the governance SharePoint site, and posted on the OET website at the end of every month.

Communications Vehicles

1. **OET Website**

   The OET website (http://www.oet.state.mn.us) will be the public repository for the basic information on governance committees and process. It will include and keep up to date:

   - Team descriptions charters & team membership
   - Minnesota iGov Monthly Reports

2. **iGov SharePoint sites**

   The iGov SharePoint site will be the primary, private document-sharing vehicle for all governance bodies. The iGov SharePoint site will contain common shared information and documents, and also private sub-folders for individual committees. Membership to the SharePoint site will be restricted to members of the governance groups and select OET staff. Agency SharePoint licenses to participate in the governance site will be covered by OET; official committee members will be provided with addresses and passwords to access the site.

   - The all-team site will include:
     - Calendar of regular governance meetings
     - IT Governance Report
     - Major Documents and reports
     - Team descriptions, charters and membership
   - Individual team folders within the IT Governance site will have access limited to team members and will include:
     - Related documents and drafts
     - Team meeting minutes and agendas
     - Additional materials, as needed

3. **Email and Web 2.0 notices**

   - Meeting notices and agendas for governance teams will be emailed to team members; agendas will include links to the SharePoint site for previous meeting minutes and the "Minnesota iGov Monthly Report."
   - Program Review Team and All CIO Team members can also subscribe to an Minnesota iGov Twitter account to receive meeting reminders and notices when documents have been added to their SharePoint site.

MINNESOTA iGOV

StandingMeetingsCalendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 Information Security Council (Monthly)	3 Deputies Meeting (not managed by OET) (Monthly)	4 Data Center Planning Team (Monthly)	5
6	7	8 Service Strategy Team (Monthly)	9	10 Commissioners Technology Advisory Board (Quarterly)	11	12
13	14 **Summary of Committee Activity** (for All CIO Team)	15	16	17 All CIO Team (Monthly)	18	19
20	21 **Program Review Team Executive Summary** (with All CIO recommendations)	22	23	24 Program Review Team (Monthly)	25	26
27	28	29	30 **Minnesota iGov Monthly Report** (public summary document)			

*iGov steering and working teams meet as needed throughout the month; meeting minutes for standard meetings will be distributed within 5 working days to the individual committees and summarized in an Executive Summary for the Program Review Team and the Commissioners Technology Advisory Board; the Minnesota iGov Monthly Report will be distributed to all governance groups and posted on the website, summarizing all activity and decision items.

MINNESOTA iGOV MonthlyReport

Month Year

Submitted By: xxx

Monthly update text [if needed]

1. Governance

Program Review Team Summary
xxx

Decision Items for the Program Review Team

Action	Assigned by	Due date	Result

Recommendations to the Commissioners Technology Advisory Board

Recommendation

Reports from Governing Teams

All CIO Team
xxx

Service Strategy Team
xxx

2. Program

THE OFFICE OF ENTERPRISE TECHNOLOGY STATE OF MINNESOTA
Providing the leadership and services that improve government through the effective use of information technology.
658 Cedar Street Saint Paul, MN 55105 www.oet.state.mn.us

Initiative 1: Standards and Enterprise Asset Procurement	
Focus Area	Anticipated Milestones: xxx
Standard Setting and Contract Negotiation	
Automated Ordering	
Policy Changes	
Communications and Awareness	

Current Activity:
xxx

Initiative 2: Architecture	
Focus Area	Anticipated Milestones: xxx
Enterprise Architectural Program	
Architecture Process Implementation	
Architecture Performance Model	

Current Activity:
xxx

Initiative 3: Project and Portfolio Management	
Focus Area	Anticipated Milestones: xxx
Project Management	
Project Management and Planning	

Current Activity:
xxx

Initiative 4: Information Security Tools and Services	
Focus Area	Anticipated Milestones: xxx
Enterprise Security Program Framework	
Comprehensive Security Monitoring and Situational Awareness	
Enterprise Vulnerability and Threat Management Tools	
Identity and Access Management	

Current Activity:
xxx

Initiative 5: Unified Communication and Collaboration	
Focus Area	Anticipated Milestones: xxx
Enterprise Email	

Initiative 5: Unified Communication and Collaboration
Additional Unified Communications and Collaboration Services

Current Activity:
xxx

Initiative 6: e-Licensing	
Focus Area	Anticipated Milestones: xxx
New Online Customer Interface	

Current Activity:
xxx

Initiative 7: Data Center Facilities and Operations	
Focus Area	Anticipated Milestones: xxx
Minnesota State Data Center and Backup Facility	
Data Center Services Portfolio Creation	
Data Center Planning and Migration	

Current Activity:
xxx

Upcoming Governance Meetings

Commissioners Technology Advisory Board

Date:	Xxx
Time:	Xxx
Location:	Xxx
Agenda Items:	Xxx

Program Review Team

Date:	Xxx
Time:	Xxx
Location:	Xxx
Agenda Items:	Xxx