



# **State of Missouri**

## **Information Technology Services Division**

### **Strategic Plan**

**2005 – 2006**

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Information Technology Services Division  
Strategic Plan  
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# **State of Missouri Information Technology Services Division Strategic Plan 2005 - 2006**

## **Overview**

### ***The Mission***

The mission of the Information Technology Services Division (ITSD) is to provide technology services and solutions for the State of Missouri departments and agencies so that they can efficiently serve their customers.

### ***The Outcomes***

Three high-level outcomes comprise the over-arching mission of the Information Technology Services Division. With the role of providing services and solutions to the State of Missouri departments and agencies, the successful delivery of the numerous and varied support services within the division are key to Missouri State Government departments and agencies to accomplish their respective missions. The ITSD outcomes are:

- ┆ *Efficiently Run IT Resources and Systems*
- ┆ *Reliable IT Systems*
- ┆ *Available IT Resources*

### ***The Measures***

Within each outcome are key measurements important to determining if we are achieving the desired outcomes. All measurements contain goals of maintaining and improving service levels. In order to give direction and timelines to the successful attainment of key measurements and ultimately outcomes, measurements are further defined with activities

and deliverables. Outcomes and their respective measurements are outlined in this overview, but additional detail for each measurement can be found in this document.

┆ *Efficiently Run IT Resources and Systems*

- ┆ *Personal Computers*
- ┆ *State Data Center*
- ┆ *Telecommunications*
- ┆ *SAM II*
- ┆ *Help desk issue resolution*  
*(Systems & Programming & Technology Services)*

┆ *Reliable IT Systems*

- ┆ *Identified and mitigated vulnerabilities*
- ┆ *Unauthorized access attempts*
- ┆ *Statewide security risks identified and mitigated*
- ┆ *508 compliant websites*

┆ *Available IT Resources*

- ┆ *Network availability (firewalls)*
- ┆ *Interagency e-mail virus and spam filtering*
- ┆ *Internet bandwidth*
- ┆ *Operating system availability*
- ┆ *Network availability (WAN)*
- ┆ *Mainframe availability*

## ***The Action Plan***

With three major outcomes identified, how will we know when we've successfully fulfilled these outcomes? Measures were developed and selected to assist in knowing if the ITSD outcomes are being met. The next layer of the ITSD Strategic Plan involves identifying strategies to meet each of the outcome measures. Each strategy is further defined by activities developed to address specific deliverables. The following ITSD outcomes identify each measure, its associated strategies and activities, thus creating an action plan designed for success.

## ***Efficiently Run IT Resources and Systems***

### ***Personal Computers – Quarterly Measurement***

*Measure: Replace 25% to 33% of OA computers each fiscal year beginning with FY07*

*Strategy: OA employees perform their daily work functions on the most efficient PCs with current software, operating systems and security*

The total cost of ownership savings for PCs will be tied to a three-year replacement cycle. This data will help us determine appropriate budget and staffing needs to support PC replacement activity.

<b>Activity</b>	<b>Deliverable</b>
Create replacement schedule	New PC's
Research industry standard	Report
Funding – make desktop technology fund money available	Available Funding

## ***Efficiently Run IT Resources and Systems***

### ***State Data Center – Annual Measurement***

*Measure: Maintain or decrease the rates per category in the FY07 SDC Cost Allocation Plan (CAP)*

*Strategy: Operate the State Data Center as close to real cost as possible*

This measurement reflects the State Data Center's total budget relating to CPU rates by category and net billing per MIPS. This data will help us decide whether agencies need to ask for decision items to supplement State Data Center charges and whether major improvements can be done.

<b>Activity</b>	<b>Deliverable</b>
Review functions to determine if most cost effective to do outside ITSD	RFP for microfiche – determine if private sector can produce microfiche cheaper than current ITSD rates
Negotiate contracts with pricing reflective of actual usage vs. CPU capacity	Determine actual MIPS (MSU) usage of products and/or applications. Where products are isolated to a limited number of applications, work with vendors to price based on usage as opposed total system availability
Review software for duplicity and functionality	As CAP is prepared, review current software features to determine needs and/or duplication

## ***Efficiently Run IT Resources and Systems***

### ***Telecommunications – Annual Measurement***

*Measure: Decrease the rates per category in the FY07 Telecom Cost Allocation Plan (CAP)*

*Strategy: Decrease the telecommunications costs to the state*

The measurement will reflect telecommunications rates per category and provide a comparison of capacity and percentage of change in rates. This data will help us decide whether agencies need to ask for decision items to supplement SDC charges and whether major improvements can be done.

<b>Activity</b>	<b>Deliverable</b>
Negotiate vendor contracts	Contracts negotiated with better rates or services
Research different technologies and implement those which prove to be cost effective	Review new technologies to determine applicability to state functions
Partner with state agencies on sharing telecom resources and infrastructure	Review other agency telecom resources to determine if statewide availability can be obtained

## ***Efficiently Run IT Resources and Systems***

### ***SAM II – Annual Measurement***

*Measure: Maintain or decrease the cost of maintaining and operating SAM II and BRASS*

*Strategy: Assure efficiently-run financial and human resource infrastructure*

This measure reflects the annual costs of operating and maintaining SAM II Financial and HR systems and BRASS. This data will help us decide if we're efficiently running our statewide financial management and HR systems.

<b>Activity</b>	<b>Deliverable</b>
Archive old data from all tables in SAM II production systems	Data archived from tables in accordance with data retention plan
Negotiate with CGI-AMS on maintenance costs	Contract renewal amendment for software maintenance
Identify seldom-used standard reports and eliminate	Seldom-used standard reports are not produced
Identify costly SAM II batch jobs, optimize or eliminate	SAM II SDC charges related to batch job costs are reduced

## ***Efficiently Run IT Resources and Systems***

### ***Help Desk Issue Resolution (Technology Services) – Monthly Measurement***

*Measure: Decrease the percentage of calls escalated to Level 2 - categorized by area of service*

*Strategy: Assure timely answers to user needs*

For this measurement calls are defined as unassigned GWI tickets, customer e-mails and phone calls. Escalated calls are those GWI tickets which are not resolved by the Help Desk staff or calls transferred to technical support staff. This data will help us decide if the Help Desk is staffed adequately and people are trained correctly and if the technical groups are testing/implementing changes effectively.

<b>Activity</b>	<b>Deliverable</b>
Duties released to Help Desk as system matures	Determine duties that could be moved to the Helpdesk
	Determine training needed or dates when duties should be moved
	Develop procedures for duties
Technical Procedures provided by Tech Support	Develop procedures
Training	Develop training plan for Network staff
	Schedule training with vendor or Tech Support staff

## ***Efficiently Run IT Resources and Systems***

### ***Help Desk Issue Resolution (Systems and Programming) – Quarterly Measurement***

*Measure: Reduce the time it takes to close help desk requests – reported by issue categories*

*Strategy: Improve response time to PC user issues*

The Systems and Programming help desk requests will be measured and defined by various issue categories. For this measure work order types are categorized and time to close is directly related to the work order type. Research or projects are tracked in this system, but are items that require more time for completion. This information will help us determine if improvements in procedures or education are needed.

<b>Activity</b>	<b>Deliverable</b>
Staff training	Increased knowledge of staff
Service level agreements for certain work orders	Timely resolution of work orders agreed upon by customers
End user training	Increased knowledge of customers
Collect baseline data	Better measure performance

## ***Reliable IT Systems***

### ***Identified and Mitigated Vulnerabilities – Monthly Measurement***

*Measure: Increase the percentage of mitigated risks from 88% to 95% by the end of the fiscal year*

*Strategy: Reduce the security liability of Missouri State Government applications*

The information gathered represents the identified vulnerabilities from the major software vendors currently used by the Office of Administration. These include Microsoft, McAfee and Cisco. Deployment of “fixes” are calculated for less than 24 hours or greater than 24 hours. This data will help us decide the exposure the State of Missouri has from software vendors currently doing business with the Office of Administration. It will help us identify the timeline of testing the patch and placing it into a production environment.

<b>Activity</b>	<b>Deliverable</b>
Widen search for vulnerabilities	Using more reporting inputs
Consolidate patch deployment	Single entity responsibility
Consolidate server deployment	Single entity responsibility
Standardize operating systems	Upgrade operating systems

## ***Reliable IT Systems***

### ***Unauthorized Access Attempts – Monthly Measurement***

*Measure: This measurement is intended to be an informational chart to show activity only*

*Strategy: Secure IT resources from outside threats*

This measure will be reported per quarter. The measure details the total number of attempts to access the state networks from sources that could have malicious intents. Impact of a successful attempt is directly related to the type of activity in the attempt. Data is pulled from intrusion prevention sensors located after the firewall through ISS Site Manager. This data will help us decide what the vulnerabilities and exposures are from the outside world.

<b>Activity</b>	<b>Deliverable</b>
Improve reporting mechanism	Better sensor configurations
Block known malicious ports	Using more reporting inputs
Block malicious IP addresses	Using more reporting inputs

## ***Reliable IT Systems***

### ***Statewide Security Risks Identified and Mitigated – Quarterly Measurement***

*Measure: Decrease the percentage of malicious downloads by 50% by the end of the fiscal year*

*Strategy: Through a combination of active and passive measures, we will reduce and identify security risks*

Statewide security risks are defined as inadvertent downloading of adware, spyware, Trojans, viruses and worms on state networks. The measure is of the number of malicious activities that have been downloaded from the Internet and identified as operating on statewide systems. Each activity must be specifically removed from the system. This data will help us decide what anti-spyware and software to install. Limit Active-X on workstations.

<b>Activity</b>	<b>Deliverable</b>
Install Anti-Spyware Software	Purchase enterprise licenses
Restrict Active-X downloads	Establish operating policy
Security Awareness Training	Establish training standards

## ***Reliable IT Systems***

### ***508 Compliant Websites – Annual Measurement***

*Measure: Increase the percent of agency websites that are compliant with 508 from 56% to 80% by June 30, 2006*

*Strategy: Improve access for all citizens to Missouri State Government websites*

The Missouri Revised Statute 191.863 requires state agencies websites to be compliant with the provisions of Section 508 of the Workforce Investment Act of 1998 regarding accessibility of information technology for individuals with disabilities. This data will help us decide what agencies/divisions are compliant with Section 508 requirements.

<b>Activity</b>	<b>Deliverable</b>
Enforce Section 191.863 RSMo	Meets the Federal 508 Standard
Review once a year	Compliance with 508 Standards

## **Available IT Resources**

### **Network Availability (Firewalls) – Monthly Measurement**

*Measure: Increase the availability of the network (firewalls) from 99.5% to 99.9% by December 2005*

*Strategy: Ensure the state's network is available to run customer applications*

For this measurement firewalls include PIX firewalls and AIX firewalls. Downtime will be defined as a time a firewall was not functioning properly by inhibiting traffic from flowing that has been authorized to flow. This will need to be a manually-kept number and will help us determine how well the firewalls are functioning.

<b>Activity</b>	<b>Deliverable</b>
Test changes before placing in production	Develop a plan and procedures to test firewall changes
	Setup and implement testing plan
Limit configuration changes to once per day	Develop procedures and protocols for once daily updates to the firewalls, then implement
Document changes	Develop firewall change and problem log and begin tracking
Cross-train staff	Develop cross training plan
Size firewall for redundancy or program for failover	Review current configuration and make recommendations on changes necessary to improve redundancy & failover capabilities
	Acquire new equipment if review above deems it necessary
Keep staff training current	Develop training plan for firewall staff

## **Available IT Resources**

### **Interagency E-Mail Virus and Spam Filtering – Monthly Measurement**

*Measure: Increase the percentage of availability from 98% to 99% by December 2005*

*Strategy: Ensure safe and available e-mail communications for Missouri State Government*

The following formula will be used: (actual up minutes / total possible up time) X 100.

Actual up minutes is the time the e-mail and virus filtering servers were up and performing. Total possible up time is the number of minutes that the servers could have been up during the time period. Components include mail relays and virus/spam filtering appliances. This data will help us decide how well interagency e-mail virus and spam filtering is working.

<b>Activity</b>	<b>Deliverable</b>
Obtain replacement product	Virus and Spam Filtering appliance
Ensure staff is well-trained on new product	Implementation and training plan for new product
Ensure new product meets requirement/proper sizing/redundancy	Pre-implementation review with vendor
Hold vendor accountable for quick resolution of issues	Review escalation procedures with vendor.
	Document vendor calls and responses to issues
Implement change management	Change and problem tracking methodology
	Procedures manual for change implementation, problem resolution, and operation of Interagency internet email virus and spam filtering servers

## **Available IT Resources**

### **Internet Bandwidth – Monthly Measurement**

*Measure: Reduce the percentage of peak Internet bandwidth from 80% to 75% or less by February, 2006*

*Strategy: Efficiently manage the state's e-mail resources*

Peak utilization is the megabits/sec for a 30 minute average as recorded by MRTG statistics. Internet bandwidth is the bandwidth across the primary MOREnet connection for the state. Current capacity is the maximum megabits/sec configured for the primary MOREnet connection. This data will help us decide how well Internet access is functioning.

<b>Activity</b>	<b>Deliverable</b>
Implement Content Filtering	Recommendation on product
	Approval from SEMA to use Homeland Security Grant
	Make acquisition
	Software Implementation Plan
	Implement Software
Implement Cache Engine	Recommendation on product
	Make acquisition
	Implementation Plan
	Implementation Complete

## **Available IT Resources**

### **Operating System Availability – Monthly/13 Month Rolling Measurement**

*Measure: Increase the availability of the Production Blade Center Servers from 91% to 93% by December 2005*

*Strategy: Efficiently manage the Production Blade Center Servers*

A server consists of hardware and software that is attached to a network which stores, processes, and transmits data or information to other computers on the network. The measurement will be the availability of Production Blade Center Servers as measured by the IBM Director System Availability Tool. The data derived from this measurement will help us decide what percentage of time each month that our customers were impacted because the blade server was not operational.

<b>Activity</b>	<b>Deliverable</b>
Refresh hardware on a regular basis	Develop a plan to refresh hardware at specific time intervals
Upgrade software levels on a regular basis	Develop a strategy for upgrading software at scheduled intervals
Staff training	Increased knowledge of staff
Available human resources	Adequate quantity of staff to support the systems

## **Available IT Resources**

### **Network Availability – Wide Area Network (WAN) – Monthly Measurement**

*Measure: Increase the number of hours of network availability to the agency from 98.99% to 99% by December 2005*

*Strategy: Manage a well-run Wide Area Network (WAN) for our customers*

This measurement will focus on decreasing the number of hours of unscheduled downtime on the Wide Area Network (WAN) services. Downtime will be measured in time based on trouble reports reported by agencies in the backbone circuit on the SBC network contract. This data will help us decide if the managed WAN services are meeting the customers' availability needs.

<b>Activity</b>	<b>Deliverable</b>
Automatic tracking of network outage	Finalize procedures and revise in-house tools to report and notify various groups of events
Track chronic circuit/equipment problems	Develop monthly reports to share with agencies and internal groups
Equipment Refresh	Review inventory and make a recommendation on equipment to replace
Vendor Management	Review contracts and vendor support issues with the vendor

## **Available IT Resources**

### **Mainframe Availability – Monthly and 13 Month Rolling Measurement**

*Measure: Decrease by 10% the % of unscheduled downtime in the current quarter from the previous quarter*

*Strategy: Manage a well-run mainframe computing environment*

Measurement will be related to the following systems: OS15, OS20 and IP04, LPARs – logical partitions, production CICS's, IDMS's, DB2's, and IMS, as well as TCP/IP stacks and VTAM. This data will help us decide what percentage of time each month that our customers were impacted because the mainframe software of LPAR they use was not available.

<b>Activity</b>	<b>Deliverable</b>
Parallel Sysplex implementation	Customers must modify their applications to make them Parallel Sysplex enabled
Keep staff training current	Develop and implement a training program for staff
Test changes before placing in production	Acquire additional resources for test LPAR (OS13) so that customers can more fully test their applications
	Acquire additional resources for a stand alone Disaster Recovery Sysplex
Controlling customer changes	Restrict customer ability to control availability of mainframe resources
More IBM parts kept onsite	Negotiate with IBM to keep more spare parts onsite
Consolidating DASD	Consolidate all DASD in the Truman Bldg computer room