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PERFORMANCE REVIEW

DEPARTMENT OF ADMINISTRATION OFFICE OF TECHNOLOGY

AUDIT OVERVIEW

The Consolidation of State Government Technology Services Into the West Virginia Office of Technology Is Intended to Reduce the Cost of Technology-Related Expenses, Technical Support and Provide Better Technology Infrastructure for the Executive Branch



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CONTENTS

Executive Summary.....	5
Objective, Scope and Methodology.....	9
Issue 1: The Consolidation of State Government Technology Services Into the West Virginia Office of Technology Is Intended to Reduce the Cost of Technology-Related Expenses, Technical Support and Provide Better Technology Infrastructure for the Executive Branch	11
List Of Tables	
Table 1: Consolidated Executive Branch Agencies and Dates of Completion.....	13
Table 2: Unconsolidated Executive Branch Agencies and Projected Dates of Completion	14
Table 3: Employee Shifts as a Result of OT Consolidation	18
Table 4: Position Shifts as a Result of Consolidation	19
Table 5: IT Human Resource Costs of Exempt, Unconsolidated, and Consolidated Agencies between FY 2005 and FY 2009.....	20
Table 6: Cost of PC and Laptop Options in IP06 and IP08 Statewide Contracts	24
Table 7: Cost of PC and Laptop Warranty Options in IP06 and IP08 Statewide Contracts.....	24
Table 8: Cost Shared PC Peripherals and Monitors in IP06 and IP08 Statewide Contracts	24
Table 9: Cost of Shared Laptop Peripherals in IP06 and IP08 Statewide Contracts	25
Table 10: Cost of Services in IP06 and IP08 Statewide Contracts	26
Table 11: Website Applications Implmented in 2008.....	27
Table 12: Websites Launched in 2008	27
Table 13: Current and Future West Virginia Interactive Website Engagements.....	28
List of Figures	
Figure 1: History of State IT Services	12
Figure 2: Average Length of Review Process for Technology Purchases in Days	22
List Of Appendices	
Appendix A: Transmittal Letter to Agency	33
Appendix B: Consulting Services Purchase Review Process.....	35
Appendix C: Agency Response	37

EXECUTIVE SUMMARY

The Office of Technology (OT) has been working to complete its consolidation of executive branch technology services since fiscal year 2006. The consolidation aims to reduce technology costs, standardize technology equipment and procedures for the executive branch, centralize information technology (IT) support staff, and generally improve the technology and technological services available to the executive branch. The consolidation is nearly complete with the exception of the Department of Revenue, West Virginia Network, and other small boards and commissions. The OT identified 15 goals for the consolidation as follows:

- Eliminate unnecessary IT positions and restructure technological support positions within the agencies of the executive branch;
- Standardize hardware, software, policies and procedures;
- Reduce technology-related costs for the agencies of the executive branch;
- Improve the technology available to the executive branch;
- Improve customer satisfaction;
- Increase network and system reliability;
- Reduce security threats;
- Centralize IT staff and equipment;
- Standardize the email system and addresses of all executive branch employees;
- Facilitate a shared calendar application;
- Provide directory services for the executive branch;
- Implement a standard office suite;
- Establish standard anti-virus protocols;
- Create virtual office capabilities with instant messaging, data and voice conferencing; and
- Implement an electronic workflow.

The Office of Technology (OT) has been working to complete its consolidation of executive branch technology services since fiscal year 2006.

Concerning these goals, the consolidation effort has eliminated 66 technology-related positions among executive branch agencies through normal attrition and should eliminate 20 more in the same manner. This along with other human resource changes saved \$1,399,742 in labor costs related to technology services for the executive branch from 2005 to the present. Along with this, the requisite purchase-approval process for technological purchases conducted by the Information Services and Communication Division in conjunction with the OT has been restructured in order to meet the goal of standardization, but it is unclear if the new approach is effective. Furthermore, the statewide purchasing contract for computer systems and peripherals negotiated by the OT and adopted in fiscal year 2008 has lowered the prices for these systems. In the design and maintenance of state websites, the OT has partnered with West Virginia Interactive to standardize the appearance, decrease site maintenance costs, and increase the user friendliness of state websites. Many executive branch agencies have or will begin utilizing West Virginia Interactive.

The consolidation effort has eliminated 66 technology-related positions among executive branch agencies through normal attrition and should eliminate 20 more in the same manner.

The specific goals concerning the email system and standardized software for the executive branch largely depend upon the complete implementation of the Microsoft Exchange system. This system has now been implemented for fully consolidated agencies. Also, the OT has formulated standard anti-virus protocols and is working to integrate all of the computer systems within the consolidated agencies into a central system. Finally, the OT utilizes a workflow process and will make this available to consolidated agencies according to need. In order to determine the satisfaction with the consolidation, the Legislative Auditor will conduct a survey of executive branch employees and publish the results in a future report.

The statewide purchasing contract for computer systems and peripherals negotiated by the OT and adopted in fiscal year 2008 has lowered the prices for these systems.

Recommendations

1. *The Legislative Auditor recommends that the Office of Technology create and implement customer satisfaction measures in all websites designed by West Virginia Interactive.*
2. *The Legislative Auditor recommends that the OT regularly survey the employees and leadership of consolidated agencies on all aspects of the services offered by the OT. These surveys should be designed with the goal of establishing future agency goals and performance measures.*
3. *The Legislative Auditor recommends that the Office of Technology evaluate the IT purchase review process to determine whether it is the most efficient process to utilize.*

In order to determine the satisfaction with the consolidation, the Legislative Auditor will conduct a survey of executive branch employees and publish the results in a future report.

4. *The Legislative Auditor recommends that the OT provide a user-friendly tracking system or tool so that agencies awaiting IT equipment purchase approval may check the status of requests.*

5. *Now that the IS&C is functioning under the auspices of the OT, the Legislative Auditor recommends that the Legislature consider modifying statute to reflect this.*

OBJECTIVE, SCOPE & METHODOLOGY

Objective

The purpose of this evaluation was to illustrate the consolidation of state technology services into the Office of Technology.

Scope

The scope of this evaluation includes the progression of state technology services from 1968 to the present. However, the majority of the information concerning the Office of Technology spans from 2005 to the present, the duration of the consolidation effort.

Methodology

The Legislative Auditor corresponded with Department of Administration and Office of Technology (OT) officials throughout this review to ascertain the many organizational and technical changes taking place due to the consolidation. In order to compare the duties of the OT to other state technology agencies, the Legislative Auditor researched the websites of all other states' technology services division. The Legislative Auditor relied on purchasing records from the Consulting Services Section of Information Services and Communications to report the timeliness of the purchasing request process for technology services and products. Furthermore, the Legislative Auditor consulted the statewide technological hardware purchasing contracts, IP06 and IP08 to determine the cost savings associated with the current (IP08) contract negotiated by the Purchasing Division and the OT. To discuss the changes in website services offered by the OT, the Legislative Auditor consulted West Virginia Interactive publications including "West Virginia Website Services Description and Fees" and the "2008 WV.gov Portal Project Annual Report" and the PEW Center on the States *State Management Report Card for 2008*. Every aspect of this review complied with the Generally Accepted Governmental Auditing Standards (GAGAS) as set forth by the Comptroller General of the United States of America.

ISSUE 1

The Consolidation of State Government Technology Services Into the West Virginia Office of Technology Is Intended to Reduce the Cost of Technology-Related Expenses, Technical Support and Provide Better Technology Infrastructure for the Executive Branch.

Issue Summary

The Office of Technology (OT) is nearing the completion of its consolidation effort which began in fiscal year 2006. The consolidation of technology services into the OT intends to reduce technology costs, standardize technology equipment and procedures for the executive branch, centralize information technology (IT) support staff, and generally improve the technology and technological services available to the executive branch. The centralization of state government technology services is the norm among the majority of other states, so the consolidation effort will make the OT comparable to 46 other states' government IT agencies.

As technology is constantly evolving and progressing, the OT is also evolving. The consolidation effort has added to this, changing many features of the OT. The number of OT employees has increased as the technical support employees of other executive branch agencies have now become OT employees. Still, the overall number of IT positions within all consolidated executive branch agencies has declined through normal attrition as intended by the consolidation. Along with this, the purchase-approval process has been restructured as well as the website services offered by the OT. The purchase-approval process changes were made in order to standardize software and equipment across the executive branch. Finally, as the consolidation effort emphasizes the need for standardization, website services offered by OT have changed in order to provide streamlined website production through the WV.gov portal. The primary intention of the consolidation effort is to reduce technology-related costs through all of these initiatives.

The consolidation of technology services into the OT intends to reduce technology costs, standardize technology equipment and procedures for the executive branch, centralize information technology (IT) support staff, and generally improve the technology and technological services available to the executive branch.

The primary intention of the consolidation effort is to reduce technology-related costs through all of these initiatives.

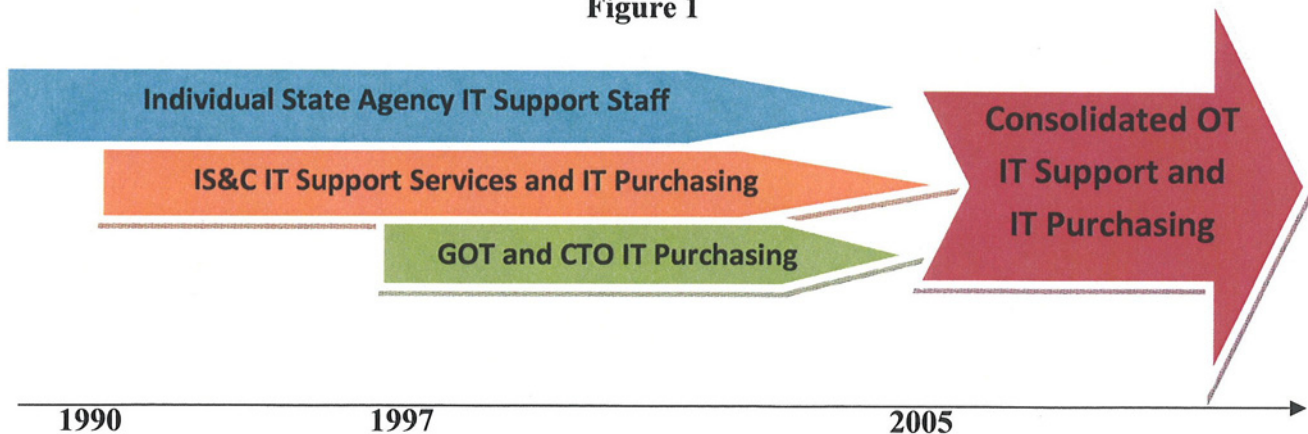
A Brief History of the Evolution of State Government Technology Services Into The Consolidated Office of Technology

Prior to 1997, the Information Systems Services Division (ISSD), created under the Department of Finance and Administration, served to establish, develop and improve data processing functions,

implement technological equipment standards and to promote the use of technology among state agencies to improve efficiency. The ISSD was later reorganized into the Division of Information Services and Communications (IS&C) with the same duties as ISSD with the addition of state telecommunications management. In 1997, House Bill 2688 created the Governor's Office of Technology (GOT) as well as the position of Chief Technology Officer (CTO), and this largely shifted the duty of technological oversight in state government to the GOT and the CTO. The IS&C still oversaw IT purchasing requests, but the CTO ultimately had the regulatory authority over purchases. This process has not changed with the consolidation of the OT. Throughout this period, state agencies had their own individual IT staffs that provided technology services to their respective agency. In 2005, the GOT was transferred to the Department of Administration with the passage of House Bill 2891, and was renamed as the Office of Technology (OT). It was also House Bill 2891 that granted the CTO the authority to begin the consolidation of technology services. Figure 1 shows the progression of state IT services up to the consolidation of the OT.

In 2005, the GOT was transferred to the Department of Administration with the passage of House Bill 2891, and was renamed as the Office of Technology (OT). It was also House Bill 2891 that granted the CTO the authority to begin the consolidation of technology services.

Figure 1



The Effort to Consolidate the Technology Services of State Agencies Into the Office of Technology Is Almost Complete

The Office of Technology has been in transition since the effort to consolidate the technological support and related positions within the executive branch of state government into a single agency began. This effort began in fiscal year 2006 with the passage of House Bill 2891. The

bill, codified as §5A-6-4(C), grants the Chief Technology Officer (CTO) the authority to:

...support a unified approach to information technology across the totality of state government, thereby assuring that the citizens and businesses of the state receive the greatest possible security, value and convenience from investments made in technology.

The consolidation of state agencies is currently incomplete, although the OT projected a completion date of January 1, 2009 in a presentation to the Joint Standing Committee on Finance on July 28, 2008. Currently, most of the agencies to be consolidated into the OT have been fully organizationally consolidated with the exception of the Department of Revenue, West Virginia Network and other small Boards and Commissions. Tables 1 and 2 below reveal the dates of consolidation for those agencies consolidated as well as projected dates of those yet to be completed. It must be noted that state constitutional offices, the Judicial branch, the Legislative branch, the Department of Education, and the Board of Education are exempt from the consolidation.

Currently, most of the agencies to be consolidated into the OT have been fully organizationally consolidated with the exception of the Department of Revenue, West Virginia Network and other small Boards and Commissions.

State constitutional offices, the Judicial branch, the Legislative branch, the Department of Education, and the Board of Education are exempt from the consolidation.

Agency	Consolidation Date
Department of Health and Human Resources	February 1, 2007
Department of Transportation	February 1, 2007
Department of Environmental Protection	May 16, 2007
Department of Commerce	July 17, 2007
Public Service Commission	June 2, 2008
Department of Administration	June 2, 2008
Department of Education and the Arts	August 16, 2008
Department of Military Affairs and Public Safety	February 1, 2009
<i>Source: Office of Technology</i>	

Agency	Projected Consolidation Date
Department of Revenue	January 1, 2010
West Virginia Network	October 1, 2009
Small Boards and Commissions	January 1, 2010
<i>Source: Office of Technology</i>	

Consolidated Technology Services Will Make West Virginia State Government Comparable to the Majority of Other States

The consolidation of IT resources will make the OT comparable to the IT support agencies of 46 other states. Kansas, Louisiana, and South Dakota are the only states that do not maintain a consolidated IT agency. In order to determine whether a state should be classified as having a consolidated IT agency, the Legislative Auditor determined that the other state's technology agency must perform at least five of the following functions for at least the executive branch of government:

1. Regulate the purchase of technology-related equipment by state agencies
2. Provide technical support
3. Guide the development and maintenance of state IT infrastructure
4. Develop and implement IT security policy for state government
5. Provide technology-related training
6. Maintain state websites

These criteria were chosen to cover the most important services offered by the West Virginia OT. Some other state's IT agencies offer an extensive array of services to both state government and private industry, while other IT agencies offer these basic services for only the executive branch. Although other IT state agencies vary widely in organization and scope, there is and has been a trend toward the centralization of IT services in state governments over the past several years. For example, the Maryland Department of Information Technology was established in 2008. This effort to consolidate actually combined two technology

The consolidation of IT resources will make the OT comparable to the IT support agencies of 46 other states.

agencies in Maryland – the former Office of Information Technology within the Department of Budget and Management and the Major Information Technology Development Fund. Additionally, Virginia formed the Virginia Information Technologies Agency (VITA) as the Commonwealth’s consolidated information technology organization in 2003. Most of the 46 other consolidated state agencies are the result of merging smaller IT entities or IT positions as is occurring in West Virginia.

The Office of Technology Has Identified the Goals of the Consolidation of State Technology Services

The OT identified 15 goals of the consolidation. Many of the goals are more general in nature, while others are more specific. Initiatives have been taken by the OT in order to achieve each goal. The goals of the consolidation, as stated by the OT are as follows:

- Eliminate unnecessary IT positions and restructure technological support positions within the agencies of the executive branch;
- Standardize hardware, software, policies and procedures;
- Reduce technology-related costs for the agencies of the executive branch;
- Improve the technology available to the executive branch;
- Improve customer satisfaction;
- Increase network and system reliability;
- Reduce security threats;
- Centralize IT staff and equipment;
- Standardize the email system and addresses of all executive branch employees;
- Facilitate a shared calendar application;
- Provide directory services for the executive branch;
- Implement a standard office suite;
- Establish standard anti-virus protocols;

Most of the 46 other consolidated state agencies are the result of merging smaller IT entities or IT positions as is occurring in West Virginia.

- Create virtual office capabilities with instant messaging, data and voice conferencing; and
- Implement an electronic workflow.

The status of many of the goals and some of the initiatives undertaken to achieve them are discussed in depth in the following sections. Multiple goals may be affected by one initiative, thus the Legislative Auditor included the initiative in the goal that was most affected. For example, initiatives undertaken to “Standardize hardware, software, policies and procedures” may ultimately affect another goal such as “Improve customer satisfaction.” Additionally, the Legislative Auditor will conduct a customer satisfaction survey of state agencies to assist in determining the status of these goals.

Eliminate Unnecessary IT Positions and Restructure Technological Support Positions Within the Agencies of the Executive Branch

Many changes in human resources resulted from the consolidation of IT services. Prior to the consolidation, most state agencies maintained their own IT support positions. The consolidation of IT services shifted 125 individuals from other agencies to the OT, so those positions are now OT positions. Currently, there are 246 IT positions remaining within other executive branch agencies. The Cabinet Secretary of the Department of Administration explains the rationale for these changes in the following statement:

The primary reason for consolidation is to achieve economies of scale. By consolidating technical support employees that supported common technology infrastructure and common business applications, it was expected that these economies could be achieved.

Although approximately 34 percent of executive branch IT employees were transferred to the Office of Technology, many will remain employees of their respective agency. In most cases, this is because of the proprietary nature of their work. The Secretary of the Department of Administration stated that not pulling in the employees whose primary duties were proprietary may be revisited at a later date, although the cost savings may not be as significant. Additionally, other employees were not transferred if they were exempt from the civil service system. The authority to make these human resource changes is granted by WV Code §5A-6-4(b)(5), which states that the CTO may:

The consolidation of IT services shifted 125 individuals from other agencies to the OT, so those positions are now OT positions.

Although approximately 34 percent of executive branch IT employees were transferred to the Office of Technology, many will remain employees of their respective agency.

Recommend to the Governor transfers of equipment and human resources from any executive branch agency and the most effective and efficient uses of the fiscal resources of executive agencies, to consolidate or centralize information-processing operations.

Along with this, the OT consolidation effort is working to reduce the total number of executive branch IT positions. Tables 3 and 4 depict the number of IT employees belonging to each state agency in FY 2005, when the consolidation effort began, and the number of IT employees for each agency in FY 2009. (In table 3, vacant positions are excluded, but table 4 includes vacancies.) These figures were accurate as of March 23, 2009. As shown in Table 4, **the OT consolidation effort has eliminated 66 IT positions and intends to eliminate 20 more positions as the consolidation continues.** The Department of Health and Human Resources eliminated 67 IT positions, and the Department of Environmental Protection eliminated 20. The elimination of these positions was achieved through normal attrition, and further positions will be eliminated through attrition. Several agencies increased IT positions in this time frame, such as Workforce West Virginia increasing by 26 and the Information Services and Communications Division (IS&C) increasing by 49 IT employees.

The OT consolidation effort has eliminated 66 IT positions and intends to eliminate 20 more positions as the consolidation continues.

Agency	Number of IT Employees		
	FY 2005	FY 2009	Difference
Adjutant General's Office	3	0	-3
Alcohol Beverage Control Administration	11	7	-4
Banking, Division of	2	0	-2
Board of Risk and Insurance Management	1	1	0
Consolidated Public Retirement Board	6	6	0
Corrections, Division of	8	4	-4
Criminal Justice	1	0	-1
Culture and History, Division of	3	1	-2
Department of Administration	1	0	-1
Department of Education and the Arts	0	1	1
Department of Environmental Protection	47	27	-20
Department of Health and Human Resources	172	105	-67
Development Office	4	0	-4
Educational Broadcasting Authority	6	6	0
Forestry, Division of	0	1	1
Geological and Economic Survey	10	12	2
Health Care Authority	4	4	0
Highways, Division of	51	32	-19
Homeland Security and Emergency Management, Division of	2	5	3
Human Rights Commission	1	1	0
Information Services and Communications	168	217	49
Insurance Commission	5	16	11
Juvenile Services, Division of	5	1	-4
Library Commission	14	11	-3
Lottery Commission	20	23	3
Motor Vehicles, Division of	1	7	6
Natural Resources, Division of	8	0	-8
Office of Miner's Health, Safety and Training	9	0	-9
Personnel, Division of	1	1	0
Prosecuting Attorneys Institute	1	1	0
Public Employees Insurance Agency	3	0	-3
Public Service Commission	6	5	-1
Purchasing Division	2	1	-1
Regional Jail and Correctional Facility Authority	4	5	1
Rehabilitation Services, Division of	29	13	-16
State Police	9	12	3
Tax Department	32	38	6
Tourism, Division of	4	0	-4
Work Force West Virginia	5	31	26
Total	659	595	-64
<i>Source: Office of Technology</i>			

Table 4 reveals the total number of employees by IT job classification as of FY 2005 and the total number of employees by job classification in FY 2009 including vacant positions.

Table 4			
Position Shifts as a Result of Consolidation			
Job Type	Number of Positions		
	2005	2009	Difference
Applications	189	184	-5
Business Analyst	10	2	-8
Database	24	26	2
Director	0	2	2
Geographical Information Systems	24	28	4
Infrastructure	257	218	-39
Manager	61	51	-10
Project Manager	0	2	2
Security	0	6	6
Other	97	77	-20
Total	662	596	-66
<i>Source: Office of Technology</i>			

Project management, internal control and remote field support positions have been created in order to provide comprehensive IT support to executive branch agencies located throughout the state.

The OT has also created new positions to serve the needs of the consolidated agency. Project management, internal control and remote field support positions have been created in order to provide comprehensive IT support to executive branch agencies located throughout the state. Another goal of the human resource restructuring of the OT is to improve the IT supervisor to IT employee ratio. Previously, the manager to employee ratio was one to six, and this ratio stood at one to nine following the consolidation of many executive branch agencies as of March 23, 2009. As with the entire consolidation effort, these human resource changes are intended to provide cost savings to the State as well as better IT support to the executive branch.

The changes in human resources have resulted in an approximate 6.43 percent decrease in labor related expenses or a savings of \$1,399,742 to the consolidated OT staff between 2005 and 2009.

The changes in human resources have resulted in an approximate 6.43 percent decrease in labor related expenses or a savings of \$1,399,742 to the consolidated OT staff between 2005 and 2009. These savings have resulted despite increases in the average salaries for these employees. The following table represents the combined and average salaries of the IT staff of executive branch agencies exempt from the consolidation, departments that have not completed the consolidation,

and consolidated departments from FY 2005 to FY 2009. The exempt agencies indicated in the table below include the Judicial Branch, the Legislative Branch, the Department of Education, and the Board of Education.

Agency Status	FY 2005			FY 2009			Total Cost Change
	Number of Employees	Total Salary Cost	Avg. Salary	Number of Employees	Total Salary Cost	Avg. Salary	
Exempt	36	\$1,401,589	\$38,933	38	\$1,608,008	\$42,316	\$206,419
Incomplete	75	\$2,788,296	\$37,177	90	\$3,608,220	\$40,091	\$819,924
Consolidated	551	\$21,756,316	\$39,194	468	\$20,356,573	\$43,496	-\$1,399,742
Total	662	\$25,946,201	\$38,435	596	\$25,572,801	\$41,968	\$373,400

Source: Office of Technology

While the consolidation of the OT has brought about an increase in average salaries, the OT attributes this increase to new, specialized positions necessary for the consolidation effort. Still, the overall cost of consolidated IT salaries has decreased from \$21,756,316 in FY 2005 to \$20,356,573 in FY 2009. The net change reveals an overall increase in average individual IT salaries from \$39,194 in FY 2005 to \$43,496 in FY 2009 and a decrease in staff from 551 employees in FY 2005 to 468 in FY 2009. Agencies that have yet to be consolidated and exempt agencies have increased both in staff and average salaries over the same period, and, due to this, the overall cost change for all IT positions in state government increased by \$373,400 from FY 2005 to FY 2009. Once the consolidation is completed it is possible that salary costs may decrease further. However, the OT does not expect the bulk of the cost savings of consolidation to manifest in human resource costs but procurement practices.

The overall cost of consolidated IT salaries has decreased from \$21,756,316 in FY 2005 to \$20,356,573 in FY 2009.

The OT does not expect the bulk of the cost savings of consolidation to manifest in human resource costs but procurement practices.

Standardize Hardware, Software, Policies and Procedures

The Office of Technology has undertaken several initiatives to standardize technology and policies and procedures relating to the use of technology. The initiatives taken include the following:

1. A new purchasing approval process to standardize equipment
2. A new statewide contract for computer systems and peripherals

3. A standardized website for all state agencies

Each of these initiatives are discussed in detail below.

PURCHASING APPROVAL PROCESS TO STANDARDIZE EQUIPMENT

The Consulting Services Section of the Division of Information Services and Communications (IS&C) had been the regulatory body responsible for the approval process of IT equipment until this authority was given to the CTO with the passage of House Bill 2688 in 1997. However, WV Code §5A-1B-4 mandates that the CTO regulate the purchase of IT equipment in conjunction with the IS&C. Thus, the IS&C Consulting Services Section, which has been fully consolidated into the OT, is still responsible for evaluating and tracking IT purchase requests. **Now that the IS&C is functioning under the auspices of the OT, the Legislative Auditor recommends that the Legislature consider modifying statute to reflect this.**

Now that the IS&C is functioning under the auspices of the OT, the Legislative Auditor recommends that the Legislature consider modifying statute to reflect this.

In order to standardize the IT equipment available to executive branch agencies, the purchase approval process was changed to allow the OT's Consulting Services staff to select a standardized product option based on the needs of the agency requesting the IT product or service. Consulting Services formally reviews any procurement request if the cost is equal to or greater than \$10,000 and involves any IT equipment, hardware, software, or IT services. Once Consulting Services completes a review, these requests are then sent to the CTO for approval. Concerning the guidelines involved in the review, Consulting Services Section considers the following questions:

The purchase approval process was changed to allow the OT's Consulting Services staff to select a standardized product option based on the needs of the agency requesting the IT product or service.

- Is there a need for whatever is being requested?
- Does what is being requested address that need?
- Is the solution technically feasible?
- Is the solution cost-effective?
- Is the solution in the best interest of the State and in conformity with established regulations, policies, and guidelines?

Prior to this change in FY 2009, the review process steps taken by Consulting Services were largely identical. The most apparent changes arising from the consolidation and the need to standardize state IT equipment is that Consulting Services now focuses more on the needs of the agency rather than the specific product or project requested by

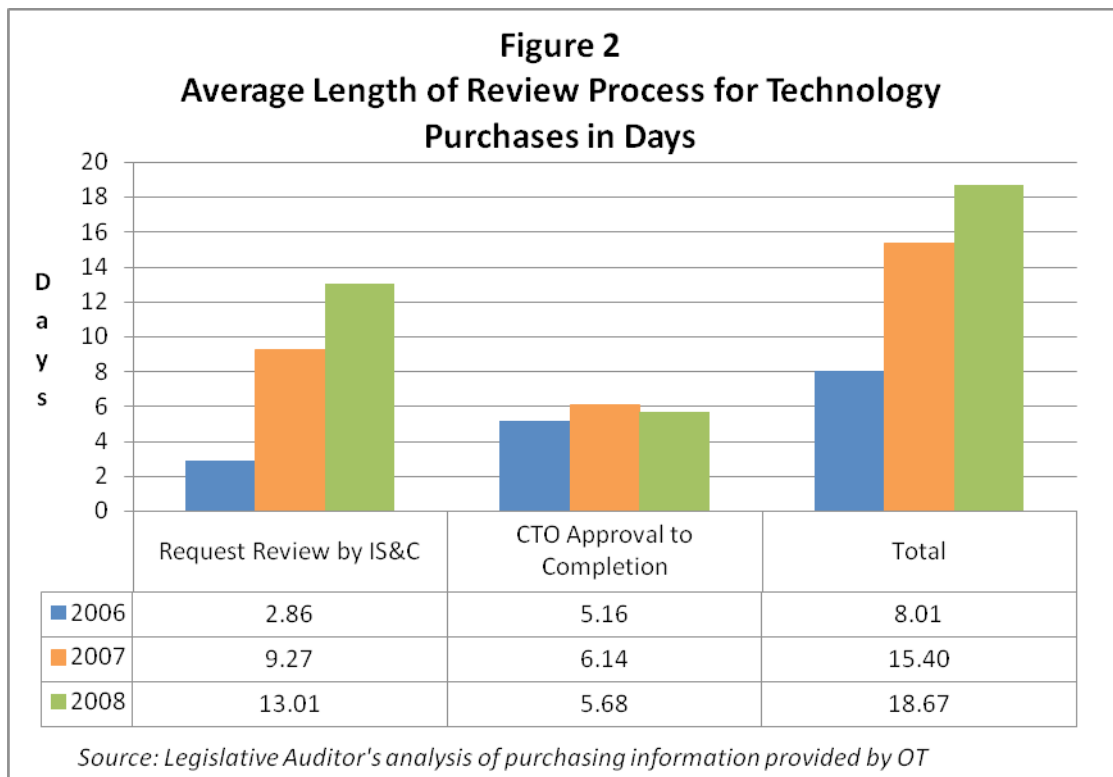
an agency. For example, prior to the implementation of the new review process, an agency would request a particular software or project for approval, now the agency must submit a description of the need for the particular IT item or service the agency is requesting. Also, now that the CTO must ultimately approve or disapprove a request, Consulting Services must send a written recommendation to the CTO before the process is complete rather than making the final approval. Appendix B contains a flow chart depicting this process.

The Legislative Auditor analyzed all IT purchase requests reviewed by Consulting Services in FY 2006, 2007 and 2008 in order to determine the timeliness of the review and approval process. Since the process has changed in that time period, it is not possible to make any conclusive statements regarding the timeliness of the process. However, the information reflects the changes in this process to some extent.

The analysis of this procurement data may indicate that the need-based process has significantly increased the timeline of these reviews from 8 days to 18 days. Figure 1 below shows the number of days the entire review process from receipt by Consulting Services to CTO approval took for the requests analyzed.

The Legislative Auditor analyzed all IT purchase requests reviewed by Consulting Services in FY 2006, 2007 and 2008 in order to determine the timeliness of the review and approval process.

The analysis of this procurement data may indicate that the need-based process has significantly increased the timeline of these reviews from 8 days to 18 days.



The increase in the average length of time does place some burden on the state agencies that have to wait longer to have a technology purchase approved. At this time, the Legislative Auditor is unable to determine whether this increase is beneficial to state government. If the longer review results in increased savings, then it is beneficial, if not, then this process may not benefit state agencies. In the survey of state agencies conducted by the Legislative Auditor in 2008, many respondents indicated that the IT purchase approval process took too long and delayed the operations of the respondent's agency. **The Legislative Auditor recommends that the Office of Technology evaluate the review process to determine whether it is the most efficient process.** Additionally, the OT should provide a user-friendly tracking device so that agencies awaiting purchase approval may check the status of requests.

The Legislative Auditor recommends that the Office of Technology evaluate the review process to determine whether it is the most efficient process.

STATEWIDE CONTRACT FOR COMPUTER SYSTEMS AND PERIPHERALS

The most recent contract for computers (IP08) as negotiated by the Office of Technology and the Purchasing Division of the Department of Administration went into effect in 2008. The IP08 contract requires that all state computers and peripherals are to be provided by Hewlett Packard (HP). The computers under the previous statewide contract (IP06) were provided by Lenovo. Both statewide contracts were an attempt to provide a cost savings for state government, but also an effort to standardize equipment. As shown in the following tables, **the current statewide contract provides cost savings to state government over the previous contract.** Tables 6 through 10 compare the costs of all of the PC models available in both IP06 and IP08, the costs of comparable peripheral items available in IP06 and IP08 contracts, the costs of services and warranties, and the costs of monitors in both contracts.

The current statewide contract provides cost savings to state government over the previous contract.

Table 6			
Cost of PC and Laptop Options in IP06 and IP08 Statewide Contracts			
Description	Cost Excluding Warranty*		
	IP06	IP08	Difference
Standard Desktop	\$553.00	\$413.00	-\$140.00
Mid-Level Desktop	\$633.00	N/A	N/A
Power Desktop	\$806.00	\$590.00	-\$216.00
Standard Laptop	\$1,044.00	\$672.50	-\$371.50
Mid-Level Laptop	\$1,333.00	N/A	N/A
Power Laptop	\$1,502.00	N/A	N/A
Day Extender Laptop	N/A	\$927.00	N/A
Traveling Worker Laptop	N/A	\$808.60	N/A
Tablet	\$1,450.00	\$1,097.50	-\$352.50
<i>*Warranty Costs are Addressed in Table 7</i>			
<i>Source: IP06 and IP08 Contracts</i>			

Table 7			
Cost of PC and Laptop Warranty Options in IP06 and IP08 Statewide Contracts			
Description	Cost		
	IP06	IP08	Difference
4 Year Warranty Onsite Only	42.00	\$46.00	4.00
4 Year Laptop Warranty Onsite	115.00	\$40.00	-75.00
4 Year Laptop Warranty Onsite and Accidental	167.00	\$80.00	-87.00
4 Year Laptop Computrace – Theft Recovery Software	86.00	N/A	N/A
4 Year Computrace and Accidental Damage	N/A	\$155.00	N/A
<i>Source: IP06 and IP08 Contracts</i>			

Table 8				
Cost of Shared PC Peripherals and Monitors in IP06 and IP08 Statewide Contracts				
Description		Cost		
		IP06	IP08	Difference
Additional Memory	1GB	\$40.00	\$32.00	-\$8.00
	2GB	\$100.00	\$61.00	-\$39.00
	4GB	N/A	\$214.00	N/A
Extra Internal Hard Drives	80GB	N/A	\$52.00	N/A
	160GB	N/A	\$64.00	N/A
	250GB	\$163.00	\$93.00	-\$70.00
	500GB	N/A	\$116.00	N/A
Internal 56K Soft Modem		\$17.00	\$11.00	-\$6.00
17" Viewsonic Color VA703B		\$210.00	\$182.00	-\$28.00
19" Viewsonic VG930M with speakers		\$275.00	\$240.00	-\$35.00
<i>Source: IP06 and IP08 Contracts</i>				

Table 9				
Cost of Shared Laptop Peripherals in IP06 and IP08 Statewide Contracts				
Description		Cost		Difference
		IP06	IP08	
Additional Memory	1GB	40.00	26.00	-14.00
	2GB	100.00	50.00	-50.00
	4GB	N/A	518.00	N/A
Extra Internal Hard Drives	100GB	144.00	N/A	N/A
	120GB	N/A	123.00	N/A
	250GB	170.00	190.00	20.00
Internal 56K Soft Modem		17.00	11.00	-6.00
Nylon Carrying Case*		41.00	22.00	-19.00
8 Cell (52 WHr) Lithium Ion Battery		N/A	89.00	N/A
12 Cell (95 WHr) Lithium Ion Battery		N/A	104.00	N/A
6 Cell Lithium Ion Battery		127.00	N/A	N/A
7 Cell High Capacity Battery		130.00	N/A	N/A
9 Cell Lithium Ion Battery		144.00	N/A	N/A
External 90 Watt Smart AC Adapter		51.00	24.00	-27.00
Docking Station		303.00	119.00	-184.00
Monitor Stand		55.00	58.00	3.00
External Speakers		5.00	14.00	9.00
<i>*Targus brand carrying case in IP06 and Hewlett Packard brand in IP08</i>				
<i>Source: IP06 and IP08 Contracts</i>				

The service costs between the two contracts (Table 10) are closely comparable, but service is provided by nCompass for IP06 products and by Pomeroy for IP08 products.

Description	Cost		Difference
	IP06	IP08	
Non-Warranty Hourly Labor Rate (Onsite)	\$69.00	\$70.00	\$1.00
Non-Warranty Hourly Labor Rate (MSCE Certified Tech)	\$106.00	\$105.00	-\$1.00
Image Load per PC	\$25.00	\$26.50	\$1.50
PC Installation per PC	\$59.00	\$55.00	-\$4.00
Network Printer Installation	\$41.00	\$40.00	-\$1.00
Delivery to Charleston per Machine	\$10.00	\$10.00	\$0.00
Travel per Hour	\$47.00	\$45.00	-\$2.00
Configuration of Hard Drive plus Other Options per Machine	\$28.00	\$26.00	-\$2.00
Configuration of Options per Machine	\$8.00	\$10.00	\$2.00
Shipping of Desktop per Machine	\$25.00	\$21.00	-\$4.00
Shipping of Laptop or Tablet per Machine	\$10.00	\$21.00	\$11.00
Asset Tagging per Machine	\$19.00	\$6.50	-\$12.50

Source: IP06 and IP08 Contracts

A STANDARDIZED WEBSITE FOR ALL STATE AGENCIES

The OT partners with West Virginia Interactive, a subsidiary of NIC, Inc., to provide website services to state agencies. West Virginia Interactive is responsible for the WV.gov portal (the state's primary web page), and, as more agencies utilize this OT partner, more agency websites will resemble the design of WV.gov and have a web address with the wv.gov suffix. This will further support the goal of standardization with a more consistent appearance of state websites.

According to the 2008 WV.gov Portal Project Annual Report, the OT along with West Virginia Interactive became the first state to utilize Microsoft Office Sharepoint Server.

According to the 2008 WV.gov Portal Project Annual Report, the OT along with West Virginia Interactive became the first state to utilize Microsoft Office Sharepoint Server. This content management software platform will allow agencies to more easily offer interactive services to citizens online. The PEW Center on the States, State Management Report Card for 2008 pointed out that West Virginia state websites should add more interactive features. The use of the Sharepoint Server along with coming website redesigns by West Virginia Interactive will allow for this improvement. Table 11 indicates the new website applications and features implemented by West Virginia Interactive in 2008.

Table 11 Website Applications Implemented in 2008		
New Applications	Agency or Site	Launch Date
Phase 1 of Driver Operating Records Search	Division of Motor Vehicles	February 2008
Enterprise Google Search	All	March 2008
Enterprise Content Management System	WV.gov	March 2008
Campaign Finance Reporting Data	Secretary of State	March 2008
State Treasury Payment System Integration	WV.gov	April 2008
WV.gov News Center	WV.gov	May 2008
State Agency Directory	WV.gov	May 2008
County Directory	WV.gov	May 2008
WV.gov Contact Us Form	WV.gov	May 2008
Portal User Survey	WV.gov	May 2008
Business4WV Legislative Update	Secretary of State	July 2008
Business4WV Annual Report Filing Update	Secretary of State	September 2008

Source: 2008 WV.gov Portal Project Annual Report, WV Interactive

Some of these new applications such as the driver records search and the WV.gov records search directly enhance the interactive capacity of the WV.gov portal as called for in the PEW report. The implementation of the Enterprise Google Search will make the WV.gov site more user-friendly by making the entire site searchable.

The Legislative Auditor initially sought further information concerning website services offered by the OT based on the fact that some executive branch agencies utilized private companies for website services. The Public Employees Insurance Agency (PEIA), for instance, has relied on Citynet for its website hosting and design. The 2008 WV.gov Portal Project Annual Report indicates that many agencies, including PEIA will be turning to West Virginia Interactive for website production. The following tables specify new agency websites added to the WV.gov portal in 2008, and those that are in development.

Some of these new applications such as the driver records search and the WV.gov records search directly enhance the interactive capacity of the WV.gov portal as called for in the PEW report.

The 2008 WV.gov Portal Project Annual Report indicates that many agencies, including PEIA will be turning to West Virginia Interactive for website production.

Table 12 Websites Launched in 2008	
Website	Launch Date
Office of the State Fire Marshall	March 2008
Pharmaceutical Cost Management Council	April 2008
WV.gov	May 2008
Education Portal	May 2008
Statewide Internet User Group	July 2008
Office of the GIS Coordinator	September 2008

Source: 2008 WV.gov Portal Project Annual Report, WV Interactive

Table 13
Current and Future West Virginia Interactive Website Engagements

Website	Monthly Fee	Production URL	Status
Alcohol Beverage Control	\$100	www.abc.wv.gov	Development
Child Support Employer Resource Center	\$0	www.dhhr.wv.gov/bcse/erc	Testing
Criminal Justice Services	\$200	TBD	Planning
Department of Administration	\$100	www.administration.wv.gov	Development
Department of Environmental Protection	\$300	TBD	Planning
Department of Transportation	\$200	www.transportation.wv.gov	Development
General Services	\$50	www.generalservices.wv.gov	Development
Office of Human Resource Development	\$50	www.personnel.wv.gov/ohrd	Development
Office of Technology	\$50	www.technology.wv.gov	Development
PEIA	\$50	www.peia.wv.gov	Development
Real Estate Appraiser's Board	\$100	TBD	Planning
Real Estate Division	\$50	TBD	Planning
Secretary of State	\$200	www.sos.wv.gov	Development
WV Rx Website	\$50	TBD	Development

Source: West Virginia Website Services Description and Fees, WV Interactive

In order to measure the customer satisfaction with these new websites and features, the Legislative Auditor recommends that user surveys be made available to visitors to any website operated by West Virginia Interactive.

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Several Initiatives Are Being Undertaken to Complete Specific Goals of the Consolidation

As stated previously, the Office of Technology identified several goals that were short term and more specific. The Legislative Auditor received correspondence from the Secretary of the Department of Administration regarding the initiatives that have or are being undertaken in order to accomplish these goals. Below is a brief update on the status of each goal.

1. Standardize the email system and addresses of all executive branch employees

The consolidation goal to standardize the email system and addresses of all executive branch employees whose agencies have been fully consolidated has now been met. The standard email address includes the employee's first and last name separated by a period, with the @wv.gov extension. Previously, each agency had different email extensions. The standard email system, Microsoft Exchange, is in place and approximately 12,000 executive branch employees are using this system and have standard email addresses.

The standard email system, Microsoft Exchange, is in place and approximately 12,000 executive branch employees are using this system and have standard email addresses.

2. Facilitate a shared calendar application

The implementation of a shared calendar application is integrated into the Microsoft Exchange email system, so the application is now available to all consolidated executive branch employees.

3. Provide directory services for the executive branch

Similarly, the implementation of Microsoft Active Directory Services is complete for consolidated agencies. Now that Microsoft Active Directory Services are in place, the OT will also enable employees to update their own contact information as needed.

4. Implement a standard office suite

The OT assigned Microsoft Office Suite Professional as the standard office suite for all consolidated executive branch agencies. All of these consolidated agencies are properly licensed and have installed the software. New versions of the software are automatically installed and updated.

5. *Establish standard anti-virus protocols*

The OT has established standard anti-virus protocols, and it manages approximately 13,000 machines. An additional 2,000 machines managed by the OT have not yet been integrated into the central system.

6. *Create virtual office capabilities with instant messaging, data and voice conferencing*

The instant messaging system utilized by the OT is Microsoft Office Communicator, and, again, this tool is now available to all consolidated agencies.

7. *Implement an electronic workflow*

Finally, the OT is developing a workflow process for its own use, but the use of this tool by other consolidated agencies will be based upon needs specific to each agency. Workflow is defined as the flow or progress of work done by a company, industry, department, or person and as the rate at which such flow or progress takes place. Since some processes are well-suited for the addition of a workflow measure while others are not, this tool may not benefit all consolidated agencies. However, all agencies have been licensed to utilize workflow tools as per the state enterprise agreement.

The Legislative Auditor will review the status of the performance measures to establish whether the OT is meeting its goals in a future report.

Conclusion

The Legislative Auditor finds that the consolidation of the Office of Technology should increase the effectiveness of the technological infrastructure of the State. However, the data on these matters are inconclusive as the consolidation is new and has not been completed. The OT has established 15 goals of the consolidation and selected performance measures that will determine whether those goals have been achieved. The Legislative Auditor will review the status of the performance measures to establish whether the OT is meeting its goals in a future report. Additionally, the report will include a survey of state agencies that will assist in determining satisfaction with the consolidation process thus far.

Recommendations

1. *The Legislative Auditor recommends that the Office of Technology create and implement customer satisfaction measures in all websites designed by West Virginia Interactive.*

- 2. The Legislative Auditor recommends that the OT regularly survey the employees and leadership of consolidated agencies on all aspects of the services offered by the OT. These surveys should be designed with the goal of establishing future agency goals and performance measures.*
- 3. The Legislative Auditor recommends that the Office of Technology evaluate the IT purchase review process to determine whether it is the most efficient process to utilize.*
- 4. The Legislative Auditor recommends that the OT provide a user-friendly tracking system or tool so that agencies awaiting IT equipment purchase approval may check the status of requests.*
- 5. Now that the IS&C is functioning under the auspices of the OT, the Legislative Auditor recommends that the legislature consider modifying statute to reflect this.*

Appendix A: Transmittal Letter

WEST VIRGINIA LEGISLATURE *Performance Evaluation and Research Division*

Building 1, Room W-314
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0610
(304) 347-4890
(304) 347-4939 FAX



John Sylvia
Director

September 1, 2009

Robert W. Ferguson, Jr, Cabinet Secretary
Department of Administration
Building 1, Room E-119
1900 Kanawha Boulevard, East
Charleston, WV 25305-0120

Dear Secretary Ferguson:

This is to transmit a draft copy of the report on the Office of Technology. This report is scheduled to be presented during the September 2009 interim meeting of the Joint Committee on Technology and also the interim meeting of the Joint Committee on Government Operations and Joint Committee on Government Organization. The Joint Committee on Technology meeting is scheduled for Monday September 14, 2009 at 3:00 p.m. in the House Finance Committee Room, and the joint meeting of the Joint Committee on Government Operations and Joint Committee on Government Organization is scheduled for Wednesday, September 16, 2009 at 11:00 a.m. in the House Chamber. It is expected that a representative from your agency be present at these meetings to orally respond to the report and answer any questions the committees may have.

Please contact Lara Stephens at 304-347-4890 by Monday, September 7, 2009 to schedule an exit conference. We need your written response to the report by noon on Tuesday, September 8, 2009, in order for it to be included in the final report.

We request that your personnel refrain from disclosing the report to anyone that is not affiliated with your agency. Thank you for your cooperation.

Sincerely,

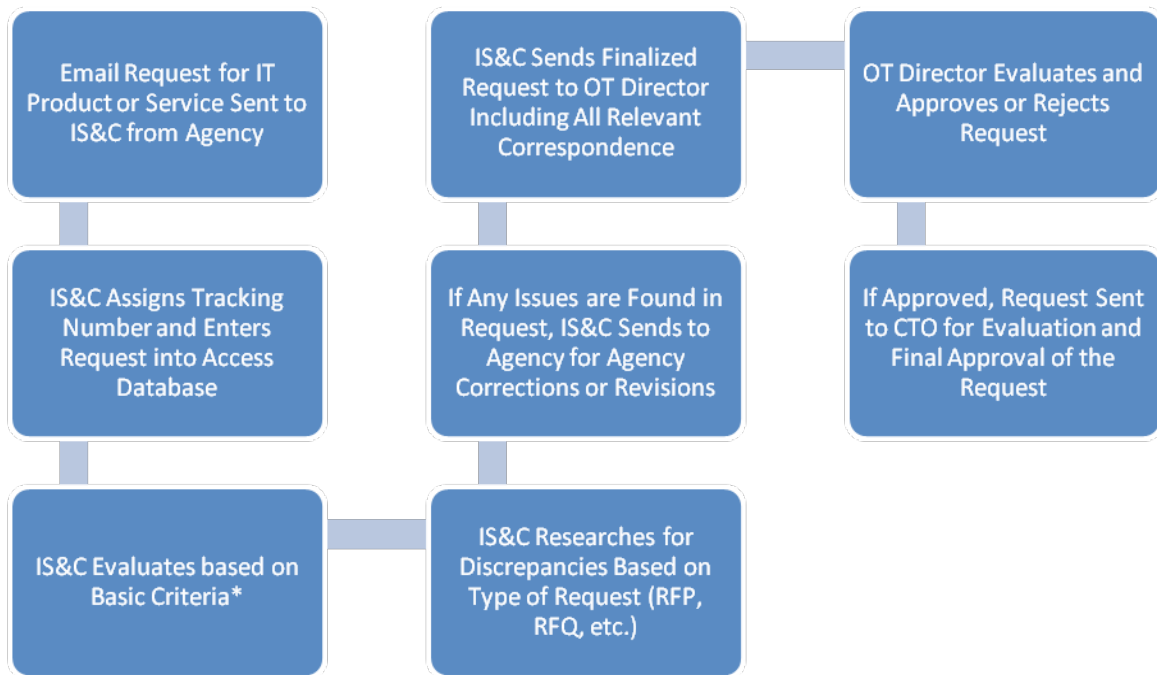
A handwritten signature in cursive script that reads "John Sylvia".

John Sylvia
Director

c. Kyle Shafer, Chief Technology Officer

Joint Committee on Government and Finance

Appendix B: Consulting Services Purchase Review Process



*If the request is for a Statewide Contract, it is sent to the Administrative Service Manager II, also known as the Contract Manager, to open for bidding. The bidding process is then overseen by the Administrative Service Manager II.

Appendix C: Agency Response



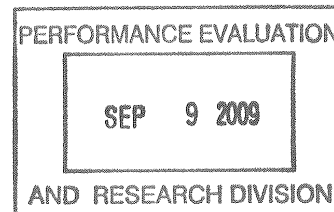
JOE MANCHIN III
GOVERNOR

STATE OF WEST VIRGINIA
DEPARTMENT OF ADMINISTRATION
OFFICE OF THE CABINET SECRETARY

ROBERT W. FERGUSON, JR.
CABINET SECRETARY

September 8, 2009

John Sylvia, Director
Performance Evaluation and Research Division
Building 1, Room W-314
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305



Dear Mr. Sylvia:

Please find below the Department of Administration's response to the Legislative Auditor's report on the Office of Technology (OT).

The "Issue Summary" of the report indicates that the information technology (IT) consolidation will make OT comparable to forty-six other states' IT agencies. However, according to Mr. Doug Robinson, Executive Director of the National Association of State Chief Information Officers (NASCIO), no more than fifty percent (50%) of states have fully centralized information technology functions. This demonstrates that West Virginia is a leader of enterprise IT consolidation in state government. In fact, OT is one of three finalists for NASCIO's nationwide award for outstanding achievement in Enterprise IT Management Initiatives.

Since it began consolidation on February 1, 2007, OT has achieved annual savings of approximately \$12.9 million, with approximately \$9.5 million of these savings returned directly to the agencies supported by the OT, while the remaining \$3.4 million is used to fund IT capital improvements. The Department of Administration thinks these savings conclusively illustrate the effectiveness of IT consolidation.

The Legislative Auditor compares the statewide contracts for computers, IP06 and IP08, to determine cost savings between the two. While correctly concluding that the current statewide contract (IP08) provides cost savings to state government over the previous contract (IP06), the Legislative Auditor fails to account for the large amount of cost savings associated with implementing the original contract. The largest savings were realized when IP06 was first implemented, as analysis comparing the costs of disparate agency purchases of computers prior to IP06 versus the costs of purchasing off of IP06. Such analysis would show a significant amount of cost savings.

In addition to the most important functions of OT identified by the Legislative Auditor, OT also sets the strategic IT governance model and direction for the state. To that end, in addition to the

DEPARTMENT OF ADMINISTRATION
OFFICE OF THE CABINET SECRETARY

Mr. John Sylvia
September 8, 2009
Page 2 of 3

standardizations of technologies and policies listed on page 8 of the report, OT plans to also standardize and converge the state's voice/data network.

The following is the Department of Administration's response to specific recommendations made in the Legislative Auditor's report:

Legislative Auditor's Recommendation 1: The Legislative Auditor recommends that the OT create and implement customer satisfaction measures in all websites designed by West Virginia Interactive.

OT agrees and will comply with this recommendation by working with West Virginia Interactive to implement customer satisfaction measures on such websites.

Legislative Auditor's Recommendation 2: The Legislative Auditor recommends that the OT regularly survey the employees and leadership of consolidated agencies on all aspects of the services offered by the OT. These surveys should be designed with the goal of establishing future agency goals and performance measures.

OT agrees with this recommendation and has been electronically surveying its customers and also meeting face-to-face with agency leadership since the beginning of the IT consolidation process.

Legislative Auditor's Recommendation 3: The Legislative Auditor recommends that the Office of Technology evaluate the IT purchase review process to determine whether it is the most efficient process to utilize.

OT agrees and with this recommendation and is constantly reviewing the process to ensure its customers' needs are met in the most efficient and effective manner. Results of such reviews have led to changes in the process in the past.

Legislative Auditor's Recommendation 4: The Legislative Auditor recommends that the OT provide a user-friendly tracking system or tool so that agencies awaiting IT equipment purchase approval may check the status of requests.

OT agrees with this recommendation and is in the process of making its current tracking system more user-friendly.

Legislative Auditor's Recommendation 5: Now that the IS&C is functioning under the auspices of the OT, the Legislative Auditor recommends that the legislature consider modifying statute to reflect this.

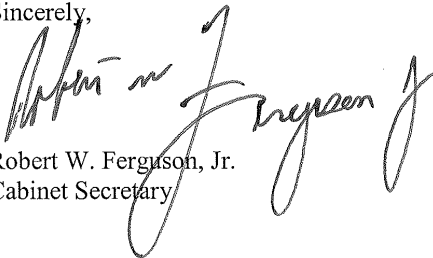
OT does not have an opinion on this recommendation.

DEPARTMENT OF ADMINISTRATION
OFFICE OF THE CABINET SECRETARY

Mr. John Sylvia
September 8, 2009
Page 3 of 3

I trust that this information is helpful. Please do not hesitate to contact me if I may be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert W. Ferguson, Jr.", written in a cursive style.

Robert W. Ferguson, Jr.
Cabinet Secretary

RWFJr:tma

cc: Kyle Schafer, CTO, Office of Technology
Donna Lipscomb, Executive Coordinator, Dept. of Administration

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WEST VIRGINIA LEGISLATIVE AUDITOR

PERFORMANCE EVALUATION & RESEARCH DIVISION

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