

# CIO Brenda Orth on Pennsylvania's Outsourcing Success Story

*Aug 5, 2009, By Brenda Orth*

Pennsylvania has long recognized the importance of using IT innovation to improve service delivery to its citizens. Every day almost 12.5 million citizens rely on our government to educate their children, protect their communities, build and maintain roadways and transportation systems, steward natural resources and much more. More than 80,000 public-sector employees in more than 45 agencies, boards and commissions across the state are responsible for delivering these services. To support these employees in their various duties, Pennsylvania invests approximately \$1 billion annually in IT.

The Office for Information Technology (OIT), part of the Governor's Office of Administration (OA), leads Pennsylvania's technology initiatives. Focused on both vision and execution, the OA/OIT is committed to ensuring that every dollar spent and every personnel hour invested in technology for state government returns the greatest possible benefit. To this end, consolidation and centralization of IT resources has been part of our strategy, delivering operational cost savings of approximately \$317 million to date and significantly improving productivity and service levels.

More recently, we expanded our focus on consolidation to encompass an extensive shared services initiative designed to drive further savings and ensure the high performance of the IT infrastructure that's required to serve residents and support economic growth.

## **1997: Outsourcing Begins**

Our journey toward consolidation and shared services began in 1997, when the OA embarked on an initiative to study the management of government operations and other states' experiences in an effort to reduce costs, increase accountability and improve service to citizens. The state considered IT an important component of the study. At the time, Pennsylvania lacked a centralized data infrastructure environment: More than 20 agency mainframe-based data centers used redundant equipment and staff to deliver similar services. Ultimately such redundancies reduced employee productivity and prevented the state from achieving economies of scale to ensure the best investment of resources.

The Pennsylvania Data PowerHouse (DPH) emerged from the operations study. Established in 1999, the DPH provides a consolidated data center environment that replaced the legacy data centers. It delivers highly secure, 24/7 support for mission-critical computing, and reliable and cost-effective IT services. The center also drove down operational costs by reducing redundancies, saving the state more than \$317 million.

These savings were achieved through staff consolidation, including natural attrition, consolidation and virtualization by some agencies into the state's technology center, and an extension of the first DPH contract in 2002.



Outsourcing was an important consideration from the inception of the DPH initiative. The state understood that its tech-savvy residents would continue to demand greater access to 24/7 online services that facilitate interaction with government. This type of environment would require 24/7 support, and the cost of hardening the IT infrastructure to achieve this goal was estimated at upward of \$100 million. Outsourcing -- and the efficiencies it affords -- was highly appealing.

After completing an extensive and competitive evaluation process, in 1999 the state selected Unisys to manage the DPH under a contract worth approximately \$525 million over eight years, including extensions. The OA/OIT based its decision on several factors, such as the contractor's outsourcing expertise, its knowledge of Pennsylvania's infrastructure and its partners' expertise.

Unisys had partnered with IBM, and Pennsylvania's infrastructure ran primarily on technology provided by both companies. Unisys manages the state's mainframe, midrange and an array of server operations; monitors the wide area network; and provides service desk, technical support and disaster recovery services for many of the state's mission-critical applications -- like systems for taxation, child support, child welfare, vehicle registration, unemployment compensation and voter registration.

With the DPH initiative, Pennsylvania was among the first states to successfully consolidate and outsource most of its mission-critical data center operations. Through this initiative, the state eliminated many operational redundancies and redeployed its resources to initiatives related to specific business areas and away from IT operationals.

Around the same time, Pennsylvania launched two additional projects that were important first steps on our shared services journey. First, the state migrated 47 individual e-mail systems to a single statewide Microsoft Exchange messaging environment that provides secure, consistent, reliable and centrally administered services to about 90,000 accounts. It has created one of the largest state-hosted Microsoft Exchange systems in North America. And in 2000, we created an enterprise server farm to address the growing issue of server sprawl, starting with just a single application and two servers.

## **Governor Directs Agency IT Consolidation**

Pennsylvania reaped significant cost and service-level benefits from its initial foray into the world of consolidation and shared services. A few years later, our focus on such initiatives broadened significantly when Edward G. Rendell became governor in 2003.

With the transition to the new administration, Pennsylvania became more focused on expanding its enterprise shared services concept across the hosting, telecommunications and desktop support environments to drive further efficiencies, boost productivity and improve service.

For example, in enterprise hosting, we built out the enterprise server farm, which now has consolidated more than 650 applications on 1,800 servers for 47 agencies and is the standard-bearer for secure and highly reliable Web hosting. More recently, we upgraded to Microsoft Exchange 2007 for increased storage, improved server performance, increased availability through the use of clustering/replication technologies and larger e-mails. Within two months, we seamlessly migrated 90,000 mailboxes, which made it the largest such upgrade in North America at the time.

In addition, in 2007 Rendell directed all agency IT organizations to consolidate under the OA/OIT. It was a step that represented a significant leap forward on our journey toward consolidation and shared services. As part of the process, the OA/OIT began documenting the enterprise computing services' objectives and evaluating potential future-state scenarios that would more effectively meet changing requirements, while providing a more flexible framework that could evolve with future requirements. For example, we sought partners that could provide approaches that would let us reduce overall cost, offer flexible pricing, introduce new technology (virtual services and/or shared storage), support agency server consolidation, and respond to our evolving business and technical requirements.

We carefully evaluated and analyzed how we could deliver shared IT infrastructure services more efficiently and effectively. Our assessment also validated savings and improvement opportunities within the DPH.

## **New Contract, Better IT Infrastructure**

Like many sophisticated organizations, the state's business, operational and technical needs evolved quickly, which had an impact on the DPH environment. For example, the first-generation environment and agreement with Unisys didn't address the migration toward open systems running on virtualized servers. In addition, many participating agencies began requesting additional flexibility in service-level agreements and other services.

Just as important, when the OA/OIT developed the DPH, we still lacked a fully integrated IT infrastructure. While resources were combined in a single location, we still had significant hardware redundancy within the DPH because resources were often segregated on different systems due to privacy and security concerns. Therefore, for technology to be a true enabler of business, we needed to shift from a segregated, mainframe-based infrastructure to a more consolidated, shared and virtualized environment that would let us eliminate redundant equipment and further consolidate the work force.

As part of our re-evaluation initiative, we worked with Unisys to find new ways to consolidate and provide more flexible services to the agencies. As a result, we renegotiated and extended our contract with Unisys in 2008 to provide the same services at about 70 percent of the cost of the original agreement, while also allowing state agencies to choose service levels at different price points. Under the new pricing structure, agencies can choose from three service levels -- gold, silver or bronze -- to allow them to better tailor the service they receive to their business requirements. For example, agencies that require 24/7 service availability would opt for higher service levels than those that need support and response only during business hours. Agencies can choose and pay for specific service levels as opposed to a one-size-fits-all approach.

## **Outsourcing Reaps \$240 Million**

The new \$404 million contract with Unisys enables the OA/OIT to reduce the time needed to achieve an additional \$240 million cost savings by 2014. It frees up much-needed resources that we can allocate to key public initiatives, such as Classrooms for the Future, which provides laptop computers to students; Growing Greener, which aims to fulfill the state's pledge to improve the economy and environment; a prescription drug initiative that supports programs to ensure Pennsylvania's senior citizens have access to life-sustaining medications; and the health information exchange program, which will impact health-care reform initiatives.

We can also better respond to changes in demand from individual agencies without making additional technology investments. In the previous model, the IT-supported job functions across our various agencies were siloed, which limited our ability to truly share computing resources across the enterprise. Because of the new initiative, costs decreased, security remained high and agencies' satisfaction increased.

Furthermore, the new consolidated system enables greater flexibility. It lets administrators redeploy processing power during instances of increased processing load. For example, prior to 2007, the system that processes Pennsylvania's unemployment compensation applications would have lacked the ability to process the current spike in applications. Because multiple agencies now share a new consolidated system due to the outsourcing initiative, administrators can redeploy processing power, as needed, from other agencies' slack capacity to carry the increased processing load.

The next-generation DPH outsourcing agreement also enabled the state to shift the pricing model from a fixed-fee-only model to a consumption-based pricing structure that's more transparent and permits variable service. It gives agencies greater visibility into how their use of computing services drives the cost of service. This capability empowers agencies with improved criteria for decision-making, planning and IT budgeting processes. In addition, we eliminated several challenges associated with migrating and supporting these applications, thanks to the development of a flexible service delivery model.

We also continue to benefit from rapid disaster recovery capabilities, which weren't widely available to state agencies before 2000. In an event that might cripple the DPH, hosted agencies have an array of disaster recovery options to choose from, including an offering that allows them to resume data processing from backup sites located safely away from the main facility. Agencies simply didn't have these sorts of disaster recovery options until their separate data centers were moved into the DPH. Few could afford it or had the manpower to deliver it.



## **Future: More Virtualization and Savings**

Pennsylvania was an early leader in changing the mindset of state government IT services, and the DPH project and our work with the outsourcing contractor played a major role in that change. At the time, it was highly unusual for Cabinet-level agencies with dramatically different missions to share computing resources. Pennsylvania set a new precedent.

We have traveled a long way, and our journey continues. For example, we will soon launch a new Web platform to expand our server farm initiative. We're phasing out antiquated software technology and converting agencies' Web presences to a powerful new portal platform. Upon completion of this projection, key services will be just one or two clicks away, and similar services will be grouped together in multiagency Web presences.

Looking ahead, we plan to significantly expand our virtualization initiatives by using software to segment hardware into multiple, secure operating environments that we can use independently for processing, storage and other activities. This approach will greatly reduce the need for physical stand-alone server requirements and significantly decrease space and power needs. It also will reduce the environmental impacts of the state's technology. When fully deployed, we expect that the state will save \$45 million over five years as a result of virtualization.

Over the last few years, we have significantly transformed the Pennsylvania state government's IT infrastructure through strategic partnerships and best-of-breed technology solutions. While a great deal of work still is ahead, we are confident that Pennsylvania will continue to raise IT standards in the public sector -- driving down costs while delivering a robust IT backbone that our agencies need to deliver efficient and valuable services to all residents.

*Photos by Addison Geary*

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