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# Commonwealth of Virginia

## Virginia Technology Portfolio 2.0

Category

IT Project and Portfolio Management



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**Category: IT Project and Portfolio Management**  
**Project: Virginia Technology Portfolio 2.0**

**Executive Summary**

Best practice information technology (IT) project management has long been a top priority in Virginia. IT investment and performance management were considered critical needs by the General Assembly when it enacted 2003 legislation centralizing IT management.

However, at that time, available information systems and business processes were inadequate to support Code-mandated responsibilities. Agency business practices did not support enterprise-wide portfolio management. Project tracking systems were not integrated and lacked analytic capability to support information requests by the Governor, General Assembly, Information Technology Investment Board and CIO.

Implementation of a business-driven IT investment management (ITIM) methodology required significant system and business process changes throughout Virginia government. The effort was divided into five components and the lifecycle that connects them, collectively referred to as the ITIM Framework. Key decision points were identified and new systems and business processes implemented at those points.

Virginia's implementation of a "Virginia Technology Portfolio 2.0" has not been simple, but it has been done. Today, the Commonwealth's enterprise-wide IT investment management process has enabled the integration of IT and business strategic planning.

Business and IT leaders have a method for connecting IT investments to specific agency business outcomes, agency strategic goals and the Commonwealth's strategic goals set by the Governor and the Council on Virginia's Future. IT appropriations from the General Assembly are directly tied to agency business outcomes. Agencies have a clearly documented roadmap for identifying IT investments that produce business value.

The Commonwealth CIO and Project Management Division (PMD) provide oversight more efficiently and reduce costs through standardized, centralized and integrated workflows. The ITIB more easily completes enterprise level review and prioritization of technology investments. Enterprise opportunities are more easily visible and coordinated. The Governor, Cabinet members, legislators and auditors now easily view IT investments, their relationship to business goals and their performance.

Thanks to implementation of enterprise portfolio planning - Virginia Technology Portfolio 2.0 - agency staff and executive leadership now easily see and understand the relationship between IT investments and agency business needs. Investment performance is easily monitored. Structured, consistent and transparent processes minimize risks, maximize return on investment and support Commonwealth agency decisions to maintain, migrate, improve, retire or obtain IT investments.

## Description of the business problem and solution

Best practice information technology (IT) project management has long been a top priority in Virginia. Both IT investment and performance management were considered critical needs by the General Assembly when it enacted 2003 legislation centralizing IT management, through creation of the Virginia Information Technologies Agency (VITA), the Information Technology Investment Board (ITIB), Chief Information Officer (CIO) and Commonwealth Project Management Division (PMD).

At that time, available information systems and business processes were inadequate to support Code-mandated responsibilities assigned to the ITIB, CIO and PMD. Agency business practices did not support enterprise-wide portfolio management. Project tracking systems were not integrated and lacked analytic capability to support information requests by the Governor, General Assembly, ITIB and CIO.

IT project oversight could not be performed in a timely fashion and lacked in-depth analysis due to restraints on accessibility of project performance data. Analysis and reporting were extremely time consuming; there was no connection between the Commonwealth's technology portfolio and agency business plans.

Gap analysis documented need for a central IT asset repository containing data to support monitoring, analysis and reporting of the IT portfolio's performance. Policies, standards and guidelines were needed to establish project and IT investment management (ITIM) methodologies.

Implementation of a business-driven IT investment management methodology required significant system and business process changes throughout Virginia government.

Virginia Technology Portfolio 2.0 project objectives:

- Integrate IT investments and business decisions
- Gather adequate, appropriate information to support decision makers
- Address governance and oversight needs of the Commonwealth
- Support systems and business processes in other segments of the ITIM lifecycle

Due to the Commonwealth's size, implementation of an enterprise-wide ITIM approach in a single effort was determined to be too complex and risky. Instead, the effort was divided into five components and the lifecycle that connects them, collectively referred to as the ITIM Framework. Key decision points were identified and new systems and business processes implemented at those points.

Governance was a key requirement for success, but it wasn't easily come by. The ITIM Standard underwent two iterations before it was approved and accepted by the ITIB. A first iteration in 2006 was not well received by agencies; a group presented concerns to the ITIB at its Jan. 2007 meeting. The ITIB determined that the CIO's ITIM Customer Council comprised of agency business leaders should provide necessary direction and

guidance for the second iteration. Allowing the business to drive the process led to success; the [Commonwealth's ITIM Standard](#) became effective Sept. 30, 2008.

Effective creation and management of a technology portfolio was another key component of ITIM's success; it also underwent several iterations. The first version, adopted in Oct. 2004, relied on three in-house systems including the Commonwealth Major IT Project Status Report Dashboard, the Commonwealth Agency Technology Status Planning Application (CATSPA) and the VITA IT Portfolio.

Prior to implementation, summarizing proposed agency IT projects for the ITIB involved all PMD resources. Information resided in two different systems, with Microsoft Excel used to synchronize data and produce graphs and charts. Last minute agency changes had to be applied to at least two systems; keeping the systems in sync and regenerating all the necessary charts and graphs proved very time consuming.

It soon was clear that these systems did not satisfy the objective. Staff considered enhancement of existing systems or complete in-house rebuild. Purchase of a commercial-off-the-shelf (COTS) application was deemed more cost effective; after thorough requirements gathering, a COTS product, ProSight, was selected through a competitive procurement. The [tool](#) now is utilized throughout the management lifecycle.

VITA provides user licenses; each agency receives a minimum of two, one for the Agency Head role and one for a designated Agency IT contact. A full-use license for a Project Manager role is also granted for active major IT projects. To provide the desired enterprise view, licensed users also now include: Deputy Secretaries, VITA Directors and Customer Account Managers, Auditor of Public Accounts auditors, Department of Planning and Budget (DPB) analysts, and Joint Legislative Audit and Review Commission auditors.

User errors and data disparity were frequent problems in previous planning cycles; PMD realized that any tool was only as helpful as its users' understanding. Therefore, issuance of a software license is made only after completion of hands-on training. A significant communications plan targeted all user groups with information about process, training and integration into agency and Commonwealth strategic planning.

The new Commonwealth strategic IT planning and management process was fully implemented for the fiscal year (FY) 2009 budget cycle using the [Aug. 2007 Recommended Technology Investment Projects \(RTIP\) report](#) which was the first compiled through the full new ITIM process. The [RTIP report](#) identifies IT investments which will best serve the needs of the Commonwealth, and is submitted annually by the ITIB to the Governor and General Assembly. It is the key reference for major IT investment decisions. The process is now in its second full year of use as PMD and agencies plan for FY2010.

## Significance

Virginia's implementation of a true enterprise-wide [IT investment management](#) process has, above all, enabled the integration of IT and business strategic planning.

Business and IT leaders have a method for connecting IT investments to specific agency business outcomes, agency strategic goals, and the Commonwealth's strategic goals set by the Governor and the Council on Virginia's Future. IT appropriations from the General Assembly are directly tied to agency business outcomes.

The Commonwealth [RTIP report](#) is the most visible end product of the integrated planning process. The ITIB's [2007 report](#), used by the Governor for FY09 and the 2008-10 budget biennium, was the first to fully incorporate the new process. A snapshot illustrates scope:

- 55 IT projects were recommended for new or continued funding, spread over ten Secretariats and 28 agencies; total recommended funding \$854,646,372
- 31 new projects were selected for funding; total value \$336,259,711

Agencies now have a [clearly documented roadmap](#) for identifying IT investments that produce business value. They use standardized methodologies to evaluate performance of operational IT assets.

The CIO and PMD provide oversight more efficiently and reduce costs through standardized, centralized and integrated workflows. Improved project management and oversight increases success rates and reduces costs. Improved future project estimations can be based on captured historical baseline data.

The ITIB more easily completes enterprise level review and prioritization of technology investments. ITIB criteria for ranking major investments are approved and publicized. Enterprise opportunities are more easily visible and coordinated.

The Governor, Cabinet members, legislators and auditors now easily view IT investments, their relationship to business goals and their performance.

The ITIM project aligns with six of the top ten 2009 NASCIO priorities: Consolidation, Shared Services, Budget and Cost Control, Security, Transparency and Governance. It also closely aligns with the Commonwealth's [Strategic Plan for IT](#).

Structured, consistent and transparent processes minimize risks, maximize return on investment and support Commonwealth agency decisions to maintain, migrate, improve, retire or obtain IT investments.

## Benefit of the project

Adoption of an enterprise-wide, integrated ITIM approach has provided significant benefits. The Commonwealth's integrated ITIM approach:

- Provides direct and indirect cost savings
- Standardizes data and reduces redundant data entry
- Aligns IT investments with business value
- Aligns with Commonwealth infrastructure and security requirements
- Enables better agency investment decisions
- Enables better executive and legislative review, prioritization and funding
- Allows view of total IT spend, including both [major and non-major projects](#)

Stakeholders now quickly receive clear, standardized reports throughout the investment lifecycle of Commonwealth and agency level portfolios. This includes project management workflow, project and portfolio cost accounting, performance evaluation, data mining and trend analysis. Both major and non-major IT projects now are included.

Thanks to process standardization, the ITIB was able to identify statewide application or enterprise solution potential for 22 out of the 31 new projects in the FY08 RTIP.

With the advent of the new process, the Department of Planning and Budget will not include major IT projects in the Governor's budget unless the project is listed in the RTIP report. IT strategic planning now is completely integrated into agency business strategic planning.

Monthly IT project status reports were not previously available. Today, they have been developed and are quickly, regularly and easily created, then used in portfolio review.

A [Commonwealth Project Manager Development Program](#) has qualified over 175 IT project managers. Over 200 agency staff members have been trained in portfolio planning. A new user group promotes continued innovation and agency involvement.

PMD has observed a significant improvement in the review process of agency IT plans. The enterprise tool provides a common environment for storing, reviewing, and revising project documents. An entry may be displayed on several forms and reports, reducing time compared to use of Word documents. An e-mail feature permits agency staff and PMD to easily share links to specific project content, fostering almost "real-time" dialogue and editing. The computational capabilities of the tool enable significantly more and faster quantitative analysis than was feasible in earlier operations.

PMD staff estimated it once took 248 hours to produce a "1 to n" ranked list of major IT projects for the ITIB. Data analysis was limited. Upon implementation, time to produce the "1 to n" ranking is two hours. If agencies submit last minute changes, they are easily added and reports quickly re-run. Once created, PMD can generate the "1 to n" list at any time. Instead of the compressed review period for the annual RTIP report

necessitated by the previous manual process, the ITIB can now see how the RTIP rankings are unfolding throughout the year via regular quarterly portfolio updates.

PMD estimates it has reallocated 3,915 person-hours annually at \$45 per hour to other tasks through efficiencies achieved by using the planning tool. Estimated annual cost avoidance for PMD = \$176,175.

Total annual cost savings include \$17,500 (reduction in printing and distribution costs), \$6,180 (database cost/SQL Server 2000) and \$754 (Windows operating system).

Total annual cost to provide planning software licenses to all stakeholders is \$59,809.

As the new process began, a new Commonwealth performance measure was established in July 2007 requiring agencies to maintain current CIO-approved IT portfolios. By working with ITIM portfolio management tools and business processes, agencies have achieved 100% performance in this measure each quarter since the measure was implemented.

Agencies now are required to associate each IT investment with the business service areas which that investment supports, which are in turn linked to agency performance measures. ProSight generates Appendix A of the IT strategic plan, which is part of the DPB strategic planning process and posted on the [Virginia Performs Web site](#). The "Report Menu" displays any agency's strategic planning menu; choose "Information Technology" then the "IT Summary Section." At the bottom is a link to Appendix A.

The [Department of Transportation's Appendix A](#) illustrates the connection between strategic business planning and IT investment planning; it displays the service areas for each investment. Appendix A must reconcile with "Proposed IT Investments" in the "IT Summary Section" which must explain how proposed investments will help the agency achieve its mission, goals and objectives described in the agency business plan.

Gartner defines the public value of IT as "measures that demonstrate how IT-related changes and investments contribute over time to improved constituent service level, operational efficiency and political return." From this perspective, adoption of an enterprise-wide, integrated ITIM approach has provided significant public value by delivering to the decision-makers and citizens consistent and accurate information on the cost and value of IT investments, achieving operational efficiencies in a cost effective manner, and supporting the political goal of aligning IT investments with executive and legislative strategies through the agency strategic planning process.

Thanks to implementation of enterprise portfolio planning – Virginia Technology Portfolio 2.0 - agency staff and executive leadership now easily see and understand the relationship between IT investments and agency business needs. Investment performance is easily monitored. This achievement directly addresses Governor Kaine's key initiative to be – and continue as - a "Best Managed State."